

Privacy Notice

I hereby acknowledge that the information I provide in this application is subject to disclosure pursuant to the North Carolina Public Records Laws, and that I provide the information contained in this application freely and voluntarily, and that by submitting my application to Wake County I consent to such disclosure pursuant to the North Carolina Public Records Laws, and that I waive and release Wake County, its agents, employees and elected and appointed officials, from any liability related to disclosure of any information provided herein.

Profile

Which Boards would you like to apply for?

Energy Advisory Commission: Submitted

Please select your first Board preference: *

Citizen's Energy Advisory Commission

Please select your second Board preference: *

Open Space and Parks Advisory Committee

Please select your third Board preference: *

None Selected

Please select your fourth Board preference: *

None Selected

Please select your fifth Board preference: *

None Selected

Please select your sixth Board preference: *

None Selected

Hannah

First Name

R

Middle Initial

Stroot

Last Name

2936 Dargan Hills Dr

Street Address

Suite or Apt

Wake Forest

City

NC

State

27587

Postal Code

What district do you live in?

None Selected

Mobile: (919) 930-1616

Primary Phone

Mobile: (919) 930-1616

Alternate Phone

hannahstroot@gmail.com

Email Address

NC Department of
Environmental Quality

Employer

Community Recycling
Specialist

Job Title

If you live in an Extraterritorial Jurisdiction Area, select Yes:

Yes No

In order to assure countywide representation, please indicate your place of residence:

Wake Forest

Interests & Experiences

Why are you interested in serving on a Board or Commission?

Wake County has been my home for over 20 years, and I'm eager to give back to a community that has given me so much while working to improve it for future generations. I plan to stay here long term, and I see service on a Board or Commission as a meaningful way to contribute my professional experience to the place I call home. As a sustainability professional, I am deeply interested in advancing practical, community-centered solutions that strengthen environmental stewardship, economic vitality, and public well-being. Through my studies in economics, policy, and environmental issues, I've gained insight into the deep interconnections between challenges like climate change, social justice, public health, and economic resilience. I strongly believe that local governments play a critical role in addressing these interconnected issues in ways that are tailored, equitable, and fiscally responsible. I greatly respect Wake County's leadership in this space, including the Board of Commissioners' 2018 endorsement of the statewide goal to reach 100% clean energy by 2050. That commitment signals long-term vision and responsibility, and I would be proud to support efforts that help turn ambitious goals into measurable outcomes. I am particularly interested in serving on the Energy Advisory Commission. Given my background in the energy industry and my passion for clean energy systems, the Commission's work closely aligns with both my expertise and my long-term interests. Although my current full-time role is not directly focused on energy, I am eager to reengage more deeply in this field through public service. The Commission's responsibilities—reviewing building designs, renewable energy strategies, life-cycle costs, energy models, and post-occupancy performance—represent exactly the kind of thoughtful, data-driven oversight that leads to lasting impact. I would welcome the opportunity to help ensure that Wake County's buildings are designed and operated to reduce energy consumption, lower costs for taxpayers, and contribute meaningfully to the County's broader clean energy goals. I am also applying to serve on the Open Space and Parks Advisory Committee because protecting natural lands is deeply important to me. I have seen how rapidly growing communities can lose valuable green space without intentional planning, and I admire Wake County's proactive goal of protecting 30% of its land area as permanent open space. The County's use of voter-approved bonds and partnerships to secure land and conservation easements reflects a serious, long-term commitment to preservation. I would be honored to contribute to recommendations that advance the Consolidated Open Space Plan, helping ensure conservation efforts remain inclusive, responsive to community needs, and protective of the natural beauty that makes Wake County such a special place to live. I am excited about the opportunity to collaborate with County staff, fellow advisory members, and community stakeholders to support policies and initiatives that enhance sustainability, community resilience, and quality of life for all Wake County residents.

Work Experience

My career has centered on advancing clean energy, sustainable resource use, and environmental stewardship through research, policy, program implementation, and collaboration with diverse stakeholders. These experiences have equipped me with the skills to provide thoughtful, data-informed guidance on the focus areas of the Energy Advisory Commission and Open Space and Parks Advisory Committee. Currently, I work as a Community Recycling Specialist at the North Carolina Department of Environmental Quality, where I help increase waste diversion and resource recovery across the state through strategic infrastructure investments, public engagement, data collection and reporting, and long-term planning. A large part of my role is advising community, state agency, and university recycling programs on improving performance, expanding services, and implementing best practices. I evaluate program design, funding structures, collection systems, and infrastructure needs to develop tailored recommendations, and I track outcomes—such as diversion rates, cost savings, and operational efficiency—to assess the impact of those improvements over time. This experience has strengthened my ability to review programs critically, provide informed recommendations, and monitor performance over time—skills directly transferable to serving on a Wake County Board or Commission. I have a strong background in the energy sector, with expertise in clean energy technologies, market structures, policies, and regulatory processes. While completing my undergraduate degree, I worked part-time for a DC-based advocacy firm focused on clean energy and energy efficiency. As a Policy Analyst at AnnDyl Policy Group, I advanced client objectives by researching policy and funding opportunities, tracking legislative and regulatory developments, and supporting grant applications. I worked with federal programs, including the Inflation Reduction Act and Infrastructure Investment and Jobs Act, helping clients navigate funding opportunities to implement high-impact clean energy and energy efficiency projects. I have also worked on energy issues in the public sector with nonprofit, educational, and governmental organizations. As an Energy Transition Researcher at the North Carolina Collaboratory, I developed tools and resources to navigate federal climate incentives and assess state-level implementation of clean energy legislation in the Southeast. In addition, I provided UNC with actionable recommendations on renewable energy funding and tax credits for universities. At the American Council on Renewable Energy, I researched clean energy financing structures and tax incentives, recommending reforms to renewable energy accounting rules to encourage investment. My research contributed to a public comment letter to the Financial Accounting Standards Board. Collectively, these experiences have provided me with the expertise and analytical skills necessary to evaluate complex energy issues and contribute effectively as a member of the Energy Advisory Commission. Equally important, I have experience supporting communities in their transition to more sustainable practices. In my UNC Public Policy Capstone with the Environmental Defense Fund, I worked with a team to identify barriers and opportunities for nature-based flood mitigation in North Carolina, focusing on under-resourced communities at high risk of flooding. By conducting expert interviews, analyzing socio-economic and environmental data, and developing a database, we delivered actionable insights to guide funding and mitigation strategies that directly benefit local residents. Similarly, as a Sustainability Intern for the Town of Chapel Hill, I contributed to the Town's first Climate Action Plan by researching local adaptation and mitigation best practices, conducting community outreach and education, and tracking program performance for reporting to the Carbon Disclosure Project. These experiences reinforced my commitment to supporting communities as they implement practical, equitable solutions for a sustainable future. Across these roles, I have honed the ability to analyze highly technical information, collaborate with diverse stakeholders, and develop actionable solutions to complex sustainability challenges. I am eager to apply this experience to help shape Wake County's energy and conservation initiatives in an evidence-based, equitable, and sustainable way.

Volunteer Experience

Community service is something I value deeply and have actively pursued over many years, particularly in the areas of local food systems and sustainability. Food systems work: During college, I was a Buckley Public Service Scholar, completing over 300 hours of community service alongside service-learning courses. As part of this program, I volunteered as a gardener at Hub Farm in Durham, a 30-acre educational farm, supporting hands-on learning for local students. While in London for my master's degree, I volunteered with FoodCycle UK, a community-led initiative that redirects surplus food to those experiencing food insecurity. Following Hurricane Helene, I had the opportunity to volunteer at food pantries and soup kitchens in Western North Carolina. Most recently, I started volunteering at Sankofa Farms, helping improve food access and promote sustainable eating in communities affected by food deserts. Sustainability: I have also dedicated significant time to sustainability initiatives. At UNC Chapel Hill, I served on the Renewable Energy Special Projects Committee (RESPEC), helping plan and implement energy efficiency and renewable energy projects on campus through collaboration with faculty, staff, and industry professionals. I currently volunteer with the North Carolina Department of Environmental Quality (DEQ) Sustainability Team, supporting internal sustainability efforts, including waste reduction and diversion, native plant and pollinator gardens, and sustainability-focused events. I also serve as a volunteer beekeeper for DEQ, assisting with honeybee hive maintenance, pollinator education, and website development. These experiences have allowed me to apply my skills to real-world sustainability challenges while building community and fostering environmental stewardship.

Education

I hold an MSc in Economics and Policy of Energy and the Environment from University College London. During the program, I received comprehensive training in environmental and resource economics, environmental assessment and law, energy modeling, climate finance, energy business models, and sustainable materials management. Through my dissertation, which applied material flow analysis to enhance circularity in the German fashion industry, I developed hands-on experience translating data and analysis into practical, sustainable solutions—an approach I hope to bring to local initiatives in Wake County. I also hold a BA in Economics and Public Policy with a Geography Minor from the University of North Carolina at Chapel Hill. My studies included coursework on natural resources, earth systems science, international environmental politics, environmental economic theory, and sustainable energy systems, alongside technical training in GIS, econometrics, and statistical analysis. I also pursued a semester-long public policy seminar in Washington, DC, where I gained experience conducting policy research, analyzing policy options, and presenting evidence-based recommendations. I hope to contribute these skills to the advisory and oversight work of the Wake County boards and commissions. Together, these academic experiences have given me a strong foundation in the intersections of economics, policy, and environmental issues, and in applying data-driven analysis to inform decisions and achieve meaningful outcomes. Building on this foundation, I am excited to apply to serve on Wake County's Energy Advisory Commission and Open Space and Parks Advisory Committee, where I hope to contribute thoughtful, evidence-based recommendations in support of a thriving community in Wake County.

Comments

[Hannah Stroot Resume.pdf](#)

Upload a Resume

If you have another document you would like to attach to your application, you may upload it below:

Please upload a file

Hannah R Stroot

Demographics

Date of Birth

Gender *

Female

Ethnicity *

Caucasian

Other

How did you become aware of Wake County volunteer opportunities?

County Website

If you selected "Other" above, how?

Please upload a file

ETHICS GUIDELINES FOR COUNTY ADVISORY BOARDS AND COMMISSIONS

By submitting this electronic application, if appointed, I pledge by my signature below that I have read and will comply with the ethics guidelines for advisory boards and commissions as adopted by the Wake County Board of Commissioners, found [here](#).

HANNAH R. STROOT

Phone: (919) 930-1616 | Email: hannahstroot@gmail.com

LinkedIn: <https://www.linkedin.com/in/hannahstroot>

Objective: Policy professional with a background in climate action and sustainability, seeking to leverage strong research and analytical skills to advance sustainable transitions.

EDUCATION

MSc Economics and Policy of Energy and the Environment **September 2024**

The Bartlett School of Environment, Energy and Resources - University College London

Grade: Distinction | Dissertation: Advancing Fashion Circularity in Germany by Material Flow Analysis

BA Economics and Public Policy **May 2023**

University of North Carolina at Chapel Hill

GPA: 3.93 | Honors: William C. Friday Arts & Humanities Research Award, Phillips Ambassadors Scholar

PROFESSIONAL EXPERIENCE

Community Recycling Specialist (40 hours/week) **January 2025 - Present**

NC Department of Environmental Quality | Raleigh, NC

- Provide technical assistance to local governments, state agencies, and universities on recycling program planning, expansion, and policy compliance to advance statewide waste diversion
- Manage grant contracts, including providing technical guidance, conducting site visits, and overseeing associated outreach and education initiatives to maximize project impact
- Collect and analyze statewide recycling data and develop reports, trainings, and educational materials to support strategic planning, program improvement, and public engagement

Zero Waste Coordinator (15 hours/week) **September 2024 - November 2024**

Live Nation | Raleigh, NC

- Optimized materials management and resource recovery during events, achieving significant landfill diversion through consumer education and efficient waste sorting
- Analyzed waste management practices and consumer behavior to identify areas for improvement, contributing innovative ideas to enhance material circularity within the venue

Policy Analyst (15-25 hours/week) **October 2022 - July 2023**

AnnDyl Policy Group | Washington, DC

- Supported engagement efforts with key stakeholders, legislators, committee members and staff to promote state and federal clean energy and energy efficiency policies on behalf of clients
- Informed clients of relevant government funding opportunities, legislative actions, and regulatory decisions through weekly written memos and face-to-face meetings
- Tracked developments in the implementation of the Inflation Reduction Act by executive agencies and states, and developed client-facing knowledge products regarding the legislation

Energy Transition Researcher (10 hours/week)

January 2023 - May 2023

North Carolina Collaboratory | Chapel Hill, NC

- Supported coordination and information sharing across state and federal agencies to enhance the ability of states in the Southeastern US to adopt and implement decarbonization policies
- Collaborated with University officials to integrate the Inflation Reduction Act's clean energy provisions into emissions reduction planning while increasing student engagement

Student Policy Analyst - UNC Public Policy Capstone (10 hours/week)

August 2022 - December 2022

Environmental Defense Fund | Raleigh, NC

- Partnered with the EDF to promote nature-based flood mitigation strategies in high-risk, under-resourced rural communities in North Carolina
- Designed and developed a database assessing barriers and drivers to flood mitigation funding

Programs Intern (30 hours/week)

January 2022 - April 2022

American Council on Renewable Energy | Washington, DC

- Researched financing structures for clean energy projects, identified accounting rules that limit tax equity investment, and recommended reforms that reflect the economics of tax incentives
- Tracked electric power sector trends, clean energy investment, and environmental, social, and governance (ESG) disclosure requirements to inform advocacy efforts by member companies
- Researched renewable energy solutions to alleviate water stress in MENA region using ArcGIS

Sustainability Intern (10 hours/week)

January 2021 - August 2021

Town of Chapel Hill | Chapel Hill, NC

- Conducted case study research on best practices to inform the Town's first Climate Action Plan
- Reported climate data to the Carbon Disclosure Project, contributing to A List recognition
- Engaged residents in sustainable living through blogs, social media, and community events

COMMUNITY SERVICE

NC DEQ Sustainability Team

January 2025 - Present

- Coordinate office waste reduction, beekeeping, pollinator projects, and sustainability outreach

UNC Renewable Energy Special Projects Committee

August 2022 - May 2023

- Planned and implemented renewable energy and energy efficiency projects on campus

UNC Buckley Public Service Scholars

August 2019 - May 2023

- Completed 300 hours of community service alongside service-learning courses and workshops

SKILLS

Policy research, stakeholder engagement, data analysis, grant administration, project management

Profile

Which Boards would you like to apply for?

Energy Advisory Commission: Submitted

Please select your first Board preference: *

Human Services Board

Please select your second Board preference: *

None Selected

Please select your third Board preference: *

None Selected

Please select your fourth Board preference: *

None Selected

Please select your fifth Board preference: *

None Selected

Please select your sixth Board preference: *

None Selected

CeCe

First Name

Grant

Last Name

Middle Initial

2200 Thornblade Dr

Street Address

Suite or Apt

Raleigh

City

NC

State

27604

Postal Code

What district do you live in?

None Selected

Mobile: (202) 905-9014

Primary Phone

Business: (919) 438-1033

Alternate Phone

cece248@gmail.com

Email Address

Loan Factory

Employer

Mortgage Loan Officer

Job Title

If you live in an Extraterritorial Jurisdiction Area, select Yes:

Yes No

In order to assure countywide representation, please indicate your place of residence:

Raleigh

Interests & Experiences

Why are you interested in serving on a Board or Commission?

I have 18 years of experience in public policy, including drafting legislation, community outreach, and constituent services. My expertise includes health care, environmental, public transportation, and workforce development. I was raised in a household of public service and have volunteered for various civic organizations over the past 40 years. The desire to use my education and expertise to serve the public is a deeply held personal value.

Work Experience

I have four years experience working for the federal government and an additional 2 years experience working at the local level. I have experience in development, grants management, and collaborating with state and local leaders to implement federal policy.

Volunteer Experience

Appointed, Montgomery County Charter Commission Appointed, Maryland Climate Advisory Council Appointed, Montgomery County Grants Advisory Member

Education

M.P.S. George Washington University, Legislative Affairs M.A. Wayne State University, Communications B.A. Business Administration

Comments

After relocating from Maryland, I have lived in the Triangle area for two years. I love my new home and would like to become civically engaged. Thank you for your consideration.

[CeCe_Grant_NC_Resume.docx.pdf](#)

Upload a Resume

If you have another document you would like to attach to your application, you may upload it below:

Please upload a file

Demographics

Date of Birth

Gender *

Female

Ethnicity *

African American

Other

How did you become aware of Wake County volunteer opportunities?

County Website

If you selected "Other" above, how?

Please upload a file

ETHICS GUIDELINES FOR COUNTY ADVISORY BOARDS AND COMMISSIONS

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Professional Experience

Executive Director, DC Vote, Washington, D.C.

2023 - present

Develop and execute the overall strategic, policy, and communications plans for the organization while expanding the capacity through robust fundraising from individual donors, foundations, and corporate partners. Uplift the issue of full voting rights for DC to a level of awareness with coalition partners and activists across the country. Serve as spokesperson for the organization with national and local media.

Director of Government Affairs, Dream.Org, Washington, DC

2021 – 2023

Spearhead overall government affairs programs by communicating with lobbyists, electeds, industry, and key stakeholders on organizational policy priorities. Convene roundtables and policy forums to highlight issues and position organization as a thought leader. Collaborate with national advocacy groups to build strategic coalitions and political power. Realize bipartisan and bicameral support on climate change, criminal justice reform, and economic equity.

National Campaign Director

Created an innovative, nationwide Common Ground on Climate campaign to develop political consensus among both parties for "common sense" state and local policy solutions. Demonstrated excellent cross-functional management strategies across our campaign, digital, communications, and policy functions. Advanced legislative objectives in Southern states by nurturing solid relations with state-based partners and consultants.

State Director, Conservation Voters of South Carolina, SC

2019 – 2020

Organized 12 candidate events and workshops across South Carolina for execution of our "Change the Climate" Presidential Engagement program. Formulated a statewide platform for environmental justice organizations and convened a policy forum to launch the initiative and build sense of community.

Executive Director, The Transit Network, Washington, D.C.

2014 – 2018

Oversaw transportation ballot initiatives across several states by delivering strategic policy analysis, technical assistance and staff trainings. Influenced legislation for additional transporting funds by devising and driving tactical plans and processes. Launched a national survey project, convening 63 transit advocacy groups across 37 states. Prepared budgets, reports, budget proposals, and presentation materials for sponsors by reviewing grant guidelines and identifying project costs.

Legislative Assistant, Senator Gary Peters, Washington, D.C.

2012– 2014

Served as Senior Advisor to Congressman focusing on Health, transportation, education, environmental and labor policy and legislation. Collaborated with regional governments and stakeholder organizations to implement policy and appropriations proposals in the district. Write legislation, congressional reports, and speeches, scheduled town hall meetings to address issues in the district.

- Secured \$1.3M federal grant to construct the Troy/Birmingham Multi-modal Transit Centers, providing suburban connections to regional transit services.
- Realized \$3.5 B profit in economic growth of City of Detroit and restored loss of \$25 M TIGER funding for M1 Rail streetcar in Detroit by actively engaging with Congressional delegation, business leaders, and Obama Administration.

Regional Organizing Manager, Transportation for America, Washington, D.C.

2010 - 2012

Supervised field staff to execute campaign strategy and media programs in different states. Partnered with the White House Office of Public Engagement to organize Transportation Town Halls in 14 states across the country to promote the passage of MAP-21.

Program Analyst, U.S. Department of Transportation, Office of the Secretary, Washington, D.C.,

2009 - 2010

Wrote and edited reports to Congress, policy drafts, FOIA requests, response letters and memos. Communicated with key staff to acquire clearances through Policy, Government Affairs, and Counsel.

Master of Professional Studies (M.P.S.) Legislative Affairs | George Washington University, Washington, DC

Master of Arts in Communication Affairs | Wayne State University, Detroit, MI

Bachelor of Arts in Business Administration | Baker College, Flint, MI

Profile

Which Boards would you like to apply for?

Energy Advisory Commission: Submitted

Please select your first Board preference: *

Council on Fitness and Health

Please select your second Board preference: *

Citizen's Energy Advisory Commission

Please select your third Board preference: *

Water Partnership

Please select your fourth Board preference: *

Economic Development Commission

Please select your fifth Board preference: *

Citizen's Energy Advisory Commission

Please select your sixth Board preference: *

Water Partnership

HIMABINDU

First Name

YAMANA

Last Name

Middle Initial

2143 Stegemann Street

Street Address

Suite or Apt

Apex

City

NC

State

27502

Postal Code

What district do you live in?

None Selected

Home: (469) 286-7160

Primary Phone

Home: (469) 286-7160

Alternate Phone

himabindu.yamana@gmail.com

Email Address

Schneider Electric

Employer

Digital Engineering Leader

Job Title

If you live in an Extraterritorial Jurisdiction Area, select Yes:

Yes No

In order to assure countywide representation, please indicate your place of residence:

Apex

Interests & Experiences

Why are you interested in serving on a Board or Commission?

As a Digital Engineering Leader at Schneider Electric, the world’s most sustainable company, I am deeply committed to advancing energy efficiency, digital innovation, and sustainability. Schneider Electric’s mission—to empower all to make the most of our energy and resources, bridging progress and sustainability for all—is not just a corporate statement; it’s a personal calling that aligns with my values and professional purpose.¹ With over 17 years of experience in embedded firmware and systems engineering, I lead initiatives that bring smart, connected, and sustainable products to life. My work sits at the intersection of technology and impact, and I believe that local communities are key stakeholders in the energy transition. Serving on the Energy Advisory Commission would allow me to contribute my technical expertise and strategic insight to help shape resilient, future-ready energy policies and infrastructure. I am particularly passionate about inclusive leadership and empowering underrepresented voices in technology. I see this role as an opportunity to advocate for equitable access to sustainable energy solutions and to help our town become a model for innovation-driven environmental stewardship. By joining the Commission, I hope to bridge my professional experience with civic engagement, contributing to initiatives that reflect both my personal mission and Schneider Electric’s commitment to sustainability, efficiency, and community impact.

Work Experience

I am a Digital Engineering Leader with over 17 years of experience in embedded firmware development and systems engineering. At Schneider Electric’s Energy Management division, I lead initiatives that deliver smart, connected, and sustainable energy solutions. My work focuses on driving innovation through scalable design, cross-functional collaboration, and digital transformation. Throughout my career, I’ve contributed to the development of technologies that improve energy efficiency and support sustainability goals. I’ve also mentored emerging engineering talent and advocated for inclusive leadership in technical fields. My experience equips me with a systems-level perspective and a strong commitment to community impact—qualities I’m eager to bring to the Energy Advisory Commission to help guide our town’s energy future.

Volunteer Experience

I have consistently taken on leadership roles in advancing diversity and equity within the engineering community. At Schneider Electric, I’ve actively contributed to employee resource groups focused on inclusion and belonging. Outside of work, I served on the board of the Society of Women Engineers (SWE) local chapter for three years, holding positions as Secretary and Vice President. During my tenure, I led a scholarship program that supports young women pursuing STEM careers—directly impacting future leaders in our field. These experiences reflect my commitment to inclusive leadership and community-driven impact, values I aim to bring to the Energy Advisory Commission.

Education

My educational background integrates advanced technical training with strategic leadership development. I hold a Master's degree in Electrical Engineering, which laid the foundation for my expertise in energy systems and embedded technologies. To expand my impact beyond engineering, I earned a business degree from the University of Michigan's Ross School of Business, equipping me with the tools to lead cross-functional initiatives and drive sustainable innovation. In addition to formal degrees, I hold a Certified Systems Engineering Professional (CSEP) credential from INCOSE, recognizing my depth of experience and commitment to systems thinking¹. I also completed MIT's Architecture and Systems Engineering certificate program

Comments

[_Himabindu Yamana Resume_11262024.pdf](#)

Upload a Resume

If you have another document you would like to attach to your application, you may upload it below:

Please upload a file

Demographics

Date of Birth

Gender *

Female

Ethnicity *

Asian

Other

How did you become aware of Wake County volunteer opportunities?

Other

If you selected "Other" above, how?

Please upload a file

ETHICS GUIDELINES FOR COUNTY ADVISORY BOARDS AND COMMISSIONS

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HIMABINDU YAMANA

Cell :1469-286-7160 | US Citizen | himabindu.yamana@gmail.com | [Linkedin](#)

Product Development Strategist with hands-on leadership experience executing and directing product design in all life cycle stages. Proven success creating and inspiring new product development transformation methods and implementing continuous improvement activities at an organizational level. Skillful in managing cross-functional teams in multiple countries and leading fast-paced complex programs. Record of accomplishment adapting to new technologies and creating frameworks and processes that enhance business results. A positive leader with a passion for coaching, developing, and influencing matrixed teams to meet targeted goals and mitigating risk.

- New Product Introduction
- Team Building & Coaching
- Planning to Flawless Execution
- Cross functional & Global Leadership
- Continuous improvement Change Agent
- Data Driven Decisions
- Thought Leadership
- System Thinker
- Customer Centric Metrics

CAREER EXPERIENCE

Digital Engineering Leader *Schneider Electric, Raleigh, NC*

Aug 2023 – Present

- Led the Vision and Mission for shaping **3** engineering sub-functions, encompassing End-to-End Firmware development, Systems Engineering Implementation, and System Verification and Validation.
- Doubled the team size from **15 to 35** successfully within a year, while establishing a robust talent pipeline for future expansion.
- Orchestrated the end-to-end integration of Firmware, Software, and cloud technologies to facilitate seamless digital transformation.
- Harnessed System Engineering processes to navigate complexity and drive tangible business outcomes.
- Spearheaded comprehensive V&V test planning and coverage, ensuring flawless execution of testing procedures.

Global Model Based Controls Design Leader, Electronics *Whirlpool Corporation, St. Joseph, Michigan*

Nov 2021 – Aug 2023

- Directed a global team spanning the US, Poland, Italy, Brazil, and India, comprising **40** Control Architects and SW Engineers, driving the delivery of advanced controls and machine learning capabilities for all Whirlpool appliances.
- Led cross-functional resource planning, forecasting resources to ensure the timely delivery of projects, alongside managing resources, budgets, and lab capital of up to **\$1.5M**.
- Pioneered innovation, strategic tech asset development, and integration of Electronic Controls using Model-based design techniques for Cross-Category products, contributing to the company's technological advancement.

V&V Strategist/Sr Manager, KitchenAid Small Appliances *Whirlpool Corporation, St. Joseph, Michigan*

Feb 2020 - Oct 2021

- Delivered robust Verification & Validation Test plans for up to **5** small appliance projects in the planning phase to meet stringent project schedule and budget constraints.
- Managed lab capital by developing roadmaps to new test procedures and fixture developments that meet consumer requirements criteria.
- Translated requirements and set targets by analyzing business, marketing, legal, and safety needs, and trade-offs are made via data-driven analysis to meet consumer needs.

- Liaison between Whirlpool and Global OEMs to V&V test plans meet consumer requirements with high quality.

Lead Architect- Engineering, Dishwashers

June 2017- Jan 2020

Whirlpool Corporation, St. Joseph, Michigan

- Demonstrated business impact by creating and pioneering Model-based Systems Engineering plan.
- Initiated and implemented organizational change by collaborating with **15** cross-functional stakeholders to develop 200+ well-written reusable requirements for new dishwasher architecture in Asia.
- Documented System Architecture using SysML that serves as a hub for engineering product development and trade-off discussions. Allowed digital traceability to reduce time-to-market for future launches.
- Created dashboards to measure key performance indicators of a project to communicate at various levels in the organization.
- Saved \$1M cost as a systems integrator - collaborating with technical, manufacturing, and service functions to analyze the impact of design changes on all functions.

Systems & Diagnostics Lead, PowerSystems

Mar 2016 –June 2017

Cummins, Inc., Columbus, Indiana

- Spearheaded Systems Engineering deployment activities for an engineering team of **10+** sub-systems and **700** engineers globally.
- Created a design review process and trained **10** cross-functional engineers on the process and technical details like diagnostic algorithms and tuning mechanisms to optimize tradeoff space.
- Supervised the diagnostic review process for **50+** diagnostics to ensure a **CPK > 1.5** on a strict deadline and consistently communicated metrics to the program managers.

Performance Integration Controls Lead

Mar 2014 – Dec 2015

Cummins, Inc., Columbus, Indiana

- Led a team of **5** to deliver After-treatment Performance Controls for multiple high horsepower (19L to 95L) engine platforms whose applications ranged from mining and hauling to locomotives.
- Liaison between **2** Business units--Emission Solutions and After-treatment Performance Controls--responsible for requirement creation, utilizing Monte-Carlo simulations, and integrating calibrated solutions per emission requirements for upto **4** Engine Platforms

Gap Analysis on After-treatment diagnostics: Chairman Award Winning for avoiding \$13M in cost.

- Prioritized the diagnostic list based on a 9-box (high frequency and high \$\$ impact) approach and designed a new resolution process to address the gaps. Revitalized Warranty accrual process for a business unit and communicated timely status updates to Executives and program directors.

Additional Relevant Experiences-

Sr. Power Electronics Controls Integration Engineer, Cummins Inc.,

May 2011 – Mar 2014

Systems Engineer, Cummins Inc., Columbus Indiana

Feb 2008 – May 2011

EDUCATION

- **Master of Business Administration** May 2022
University of Michigan, Michigan
- **Master of Science, Electronics Engineering** Dec 2007
The University of Texas at Arlington, Texas
- **Bachelor of Engineering, Electronics and Communications Engineering** March 2005
Jawaharlal Nehru Technological University, India

Profile

Which Boards would you like to apply for?

Energy Advisory Commission: Submitted

Please select your first Board preference: *

City of Raleigh Planning Commission

Please select your second Board preference: *

Durham and Wake Counties Research and Production Service District Advisory Committee

Please select your third Board preference: *

Keep America Beautiful Advisory Board

Please select your fourth Board preference: *

Citizen's Energy Advisory Commission

Please select your fifth Board preference: *

Economic Development Commission

Please select your sixth Board preference: *

Capital Area Workforce Development Board

Shunda Sharice

First Name

S

Middle Initial

Lloyd

Last Name

1133 Villa Green Ct

Street Address

Suite or Apt

Raleigh

City

NC

State

27612

Postal Code

What district do you live in?

None Selected

Home: (919) 244-2101

Primary Phone

Home: (919) 985-4555

Alternate Phone

sslloyd@proton.me

Email Address

Department of Natural and Cultural Resources

Employer

Outreach Coordinator

Job Title

If you live in an Extraterritorial Jurisdiction Area, select Yes:

Yes No

In order to assure countywide representation, please indicate your place of residence:

Raleigh

Interests & Experiences

Why are you interested in serving on a Board or Commission?

I have been a part of the Energy Literacy Fellowship since 2022 through UNC Chapel Hill which has allowed me to see the trajectory of how energy is going to be a commodity that will be a change with maintaining equity for the residents of Wake County and beyond. I am an educator that focuses on STEM education for K-12 youth and I teach AI technology to Duke Pre-College students which is why I want to be a part of the process to ensure we are balancing technological advances with the natural resources that are being used with limited accountability.

Work Experience

Educator with the WCPSS, Duke Pre-College, early childhood development centers, tutoring of elementary students, and currently the Outreach Coordinator for the DNCR and NC Historic Sites.

Volunteer Experience

The Department of Corrections (Central Prison spiritual care volunteer)

Education

UNC Chapel Hill - Master of Art in Teaching Johnson C. Smith University- Bachelor's in Science (Biology) Duke Divinity School with a concentration in Theology, Medicine, and Culture Western Piedmont Community College- Business Planning and Development

Comments

[Sharice_L_2025_resume_.pdf](#)

Upload a Resume

[Pastel_Green_Coral_Blobs_Wellness_Coach_Bio_Instagram_Post.pdf](#)

If you have another document you would like to attach to your application, you may upload it below:

Please upload a file

Demographics

Shunda Sharice S Lloyd

Date of Birth

Gender *

Female

Ethnicity *

African American

Native American

Other

How did you become aware of Wake County volunteer opportunities?

County Website

If you selected "Other" above, how?

Please upload a file

ETHICS GUIDELINES FOR COUNTY ADVISORY BOARDS AND COMMISSIONS

By submitting this electronic application, if appointed, I pledge by my signature below that I have read and will comply with the ethics guidelines for advisory boards and commissions as adopted by the Wake County Board of Commissioners, found [here](#).

S. SHARICE LLOYD

Raleigh, NC | Phone: 919-985-4555 | sslloyd@proton.me | [LinkedIn](#) | [@MsLloydSTEM](#)

Objective: To share my wealth of knowledge in STEM education to scholars in higher education.

With over 10 years of experience in STEM education, curriculum development, and project-based learning, I excel in creating engaging, culturally responsive instructional materials. A lifelong learner, I incorporate sustainable development, innovative technology, and equity-focused approaches in my instruction and have provided extensive peer support in the classroom and with professional development.

CAREER HIGHLIGHTS

- Extensive experience in analyzing, updating, and refining existing **instructional content** to ensure relevance and effectiveness using platforms such as Canvas, Canva, Adobe, and Magic School AI.
- Develop instructional support materials, such as **instructor's manuals**, rubrics, and teaching tools.
- Create modules, storyboards, and template designs for courses such as AI and Law at Duke Pre-College.
- Over 10 years of classroom experience with a strong commitment to professional development and staying at the forefront of STEM education.
- WCPSS Equity Cohort participant for the 2023-24 school year
- AVID secondary teacher site co-coordinator for 2023
- Board of Elections **Computer Worker** for the Primaries and Early Elections for Wake County
- Teacher of the Month (December 2023)
- Top Flight Educator (March 2024)
- Former Biotech/biomedical researcher in areas of toxicogenomics and cancer at various RTP institutes such as the EPA which required the implementation of proper use of government guidelines, SOPs, and other written materials that aligned with research integrity.
- Serve on the teacher committee as part of the Energy Literacy Fellow (ELF) program
- Partnered with local and international partners to design hygiene kits for middle school girls in Uganda
- Energy Literacy Fellow and Teacher Advisory Committee member through the UNC Institute for the Environment to learn current clean energy trends and how it will impact financial growth in the state of North Carolina
- Marble Museum Educator Advisory Council member to help develop and evaluate educational programs/exhibits.

CORE COMPETENCIES

AI Tools Teaching & Training | Data-Driven Decision Making | Strategic Communications | Project Management | Social Emotional Development | Curriculum Development | Teamwork & Collaboration | Restorative Circle Interventions

TEACHING EXPERIENCE

Duke Pre-College

June-present

A.I. Law and Technology /Smart Cities/ Mars Colonization Instructor for 6-11 graders

- Designed learning objects including but not limited to eLearning modules, PowerPoints, course assignments, and assessments to be used on the Canvas LMS platform
- Incorporate the Sustainable Development Goals set by the United Nations into instruction, fostering global awareness and promoting student-led action on issues such as environmental sustainability and social justice.
- Collaborated with the City of Durham's technology department for students to understand digital inclusion and its significance in Smart Cities
- Organized and facilitated Zoom visits with local leaders from nonprofit organizations such as Pink STEAM that focused on leveraging technology for community engagement and development
- Ensured students received formal training and guidance from Duke librarians on finding credible resources to use to research ways to make a sustainable Smart City
- Planned hands-on sessions and field trips to places such as Nasher Museum
- Guided students in developing critical thinking and research methodologies
- Tools and methods for assessing individual carbon footprints

Chapel Hill-Carrboro City Schools

August 2024 -present

Substitute Teacher (various subjects)

- An adaptable and dedicated Substitute Teacher with experience across multiple schools within the district.
- Ensures the continuity of student learning by effectively implementing lesson plans and maintaining classroom order.
- Responsibilities included: Lesson implementation and constant communication with the primary teacher to ensure students are completing their assignments and staying on track.
- Student Supervision: Perform lunch duty and supervise students during non-classroom activities, ensuring a safe and organized environment.
- Behavior Management: Collaborated with staff to redirect and manage student behavior, maintaining a positive and productive classroom atmosphere.
- Effective interaction with teachers, students, and administration to ensure student growth and development.

Wake County Public School System

2021 - 2024

Science Educator and Science Olympiad Coach

- Design and implement an engaging and culturally responsive science curriculum aligned with the North Carolina Standard Course of Study (NCSCOS) based on the Science and Engineering Practices (SEP) standards.

- Incorporate the Sustainable Development Goals set by the United Nations into instruction, fostering global awareness and promoting student-led action on issues such as environmental sustainability and social justice.
- Serve as co-coach of the Science Olympiad team, guiding students in preparing for competitions and fostering collaboration, critical thinking, and problem-solving skills.
- Facilitate inquiry-based learning experiences in areas including plants and ecosystems, forces and motion, chemistry, and space, utilizing hands-on experiments, technology integration, and real-world applications.
- Actively participate in the Wake County Public School System (WCPSS) Equity Cohort, collaborating with colleagues to address issues of equity, diversity, and inclusion within the school community.
- Serve as advisor for the AVID (Advancement Via Individual Determination) cohort, providing academic support, college readiness resources, and mentorship to students from diverse backgrounds.
- Implement project-based learning (PBL) initiatives that empower students to investigate real-world problems, develop solutions, and become responsible stewards of the environment.
- Achieve a student proficiency rate of 90% in the curriculum taught, demonstrating effectiveness in instructional delivery and student learning outcomes
- Awareness of strategies outlined in students' PBSPs, IEPs, BIPs, and 504 plans to implement appropriate interventions during crises to de-escalate behavior and provide support.

Primrose Schools

2012 – 2016

Co-Teacher, Primrose of Hilburn

- Supervised and engaged children in various indoor and outdoor activities to promote socialization, creativity, and physical fitness.
- Established positive rapport with staff members, children, and families, ensuring a supportive and trusting relationship.
- Maintained a clean and organized childcare environment, including sanitizing toys, preparing meals, and tidying play areas.
- Implemented age-appropriate educational and enrichment activities to support children's developmental milestones and interests.
- Communicated regularly with parents regarding their child's progress, behavior, and daily activities.

Moore County Schools

2010 – 2011

Middle School Science Teacher

- Develop and deliver dynamic lesson plans and instructional materials aligned with the NCSCOS, covering topics such as weather, the human body system, chemistry, cells, and physics.

- Utilize a variety of teaching strategies, including hands-on experiments, technology integration, and cooperative learning activities, to engage students and enhance understanding.
- Differentiate instruction to accommodate diverse learning styles and abilities within the classroom, ensuring all students have access to meaningful learning experiences.
- Implement formative and summative assessments to monitor student progress and inform instructional decisions, providing timely feedback to support growth.
- Foster a positive and inclusive classroom environment that promotes respect, collaboration, and a love for learning.
- Actively participate in school-wide initiatives, including the beautification of the school campus, to enhance the learning environment and promote pride in the school community.

Carter G. Woodson School of Challenge

2009 – 2010

Middle School 7-8 Grade Science Teacher

- Utilize inquiry-based instruction, hands-on experiments, and real-world applications to foster critical thinking skills and scientific literacy among students.
- Create a supportive and inclusive classroom environment where students feel valued, respected, and motivated to learn.
- Developed and implemented the first Carter G. Woodson Recycling Program “Feed the Bin”.
- Collaborate with colleagues, administrators, and community partners to develop and implement initiatives to promote student success and address the needs of the school community.
- Organize and facilitate field trips and educational experiences, including visits to events led by NC State Science House, to expose female students to STEM careers and opportunities.
- Co-taught the summer reading acceleration program to enhance students' reading comprehension and vocabulary skills, providing targeted instruction and support.

The University of North Carolina at Chapel Hill

2008 – 2009

Student-Teacher at East Chapel Hill High- Chapel Hill, NC

- Collaborated with a mentor teacher to plan and implement an engaging and rigorous Biology curriculum aligned with state standards and AVID program objectives.
- Designed and delivered dynamic lessons incorporating hands-on activities, inquiry-based learning, and technology integration to enhance student understanding and engagement.
- Provided differentiated instruction to meet the diverse learning needs of students, including English Language Learners and students with special accommodations.
- Advised and mentored first-generation college-bound students as part of the AVID program, offering academic support, guidance on college applications, and resources for post-secondary education.
- Facilitated classroom discussions, group projects, and cooperative learning activities to promote critical thinking, collaboration, and communication skills among students.

ADDITIONAL EXPERIENCE

Duke Divinity School.

2016 – 2019

Project Coordinator/Chaplain Intern

- Coordinate and oversee educational programs, including Bible studies, physical education, and health education initiatives, for individuals ranging from 6 to 18 years old, graduate school adults, and ministry employees.
- Develop and implement curriculum plans tailored to the specific needs and interests of diverse learner populations.
- Facilitate engaging and interactive learning experiences to promote spiritual growth, physical wellness, and overall well-being.
- Collaborate with community partners to expand program reach and enhance resources available to participants.
- Manage program budgets, logistics, and volunteer recruitment to ensure smooth operation and successful outcomes.
- Conduct regular assessments and evaluations to measure program effectiveness and identify areas for improvement.

EDUCATION

Duke Divinity School

Master of Divinity | 2019

Certificate in Theology, Medicine, and Culture

The University of North Carolina at Chapel Hill

Master's Degree, Secondary Science Education | 2009

Johnson C. Smith University

Bachelor of Science, Biology | 2003

TECHNICAL SKILLS

Microsoft Office 365 | Canvas | Schoolnet | Google Workspace | Magic School | Curipod | Formative AI
Adobe | Canva | Genially | EVAAS (Education Value-Added Assessment System)

S.T.E.M. Educator

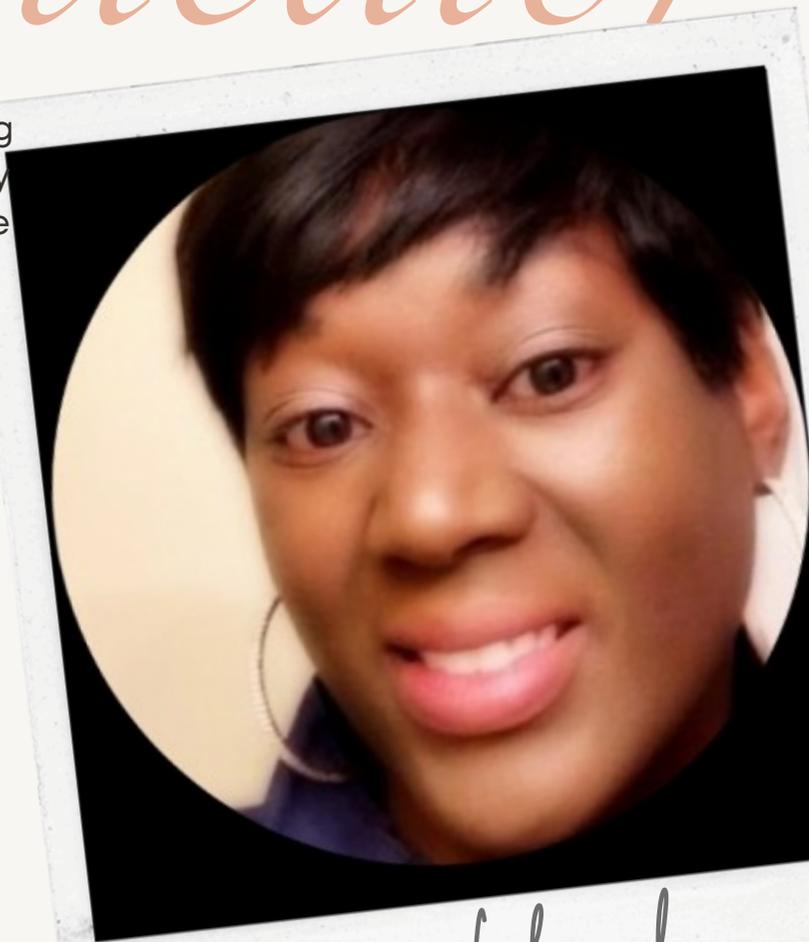
Ms. Lloyd, MAT, M.Div., is an educator dedicated to serving others in STEM education, industries, and community outreach. Currently serving as a Science Educator within the CHCCS and formerly the Wake County Public School System (WCPSS), Ms. Lloyd brings her passion for science and education to inspire young minds. As a co-coach for the Science Olympiad- she fosters a love for science and encourages students to explore the wonders of the natural world and beyond!

Graduating from Duke Divinity School with a Master of Divinity degree and a certificate in Theology, Medicine, and Culture, she has embraced her calling to provide spiritual and medical care to those in need in healthcare, with an awareness of cultural differences. During the COVID-19 pandemic, she served as a Chaplain Resident at Cone Health, offering compassionate presence and ministry to individuals facing emotional, mental, and physical distress.

Ms. Lloyd has engaged in both local and international outreach efforts. From leading projects addressing the impact of gentrification on the homeless population in Durham, NC to empowering women and adolescent girls through initiatives like the Bethany Miracle Pad Project in Uganda, Africa, she exemplifies a commitment to social justice and empowerment.

Before her theological studies, Ms. Lloyd honed her skills as an educator, teaching middle and Pre-K students in various North Carolina communities. Armed with a Bachelor of Science degree in Biology from Johnson C. Smith University and a Master of Arts in Teaching degree from the University of North Carolina at Chapel Hill, she combines her passion for science with her dedication to education. She continues to find ways to ensure that students use technology as a tool, not a toy, as she teaches AI Law and Technology and Smart Cities to Duke Pre-College students.

In all her endeavors, Sharice Lloyd embodies a holistic approach to service, blending her expertise in education, medicine, and advocacy to make a positive impact in the lives of others.



Ms. Lloyd



Profile

Which Boards would you like to apply for?

Energy Advisory Commission: Submitted

Please select your first Board preference: *

Citizen's Energy Advisory Commission

Please select your second Board preference: *

Citizen's Energy Advisory Commission

Please select your third Board preference: *

Citizen's Energy Advisory Commission

Please select your fourth Board preference: *

Citizen's Energy Advisory Commission

Please select your fifth Board preference: *

Citizen's Energy Advisory Commission

Please select your sixth Board preference: *

Citizen's Energy Advisory Commission

Muawia

First Name

Hassan

Last Name

Middle Initial

530 Granite Grove Loop

Street Address

Suite or Apt

Wake Forest

City

NC

State

27587

Postal Code

What district do you live in?

None Selected

Mobile: (541) 668-5663

Primary Phone

Mobile: (541) 668-5663

Alternate Phone

hassanmuawia18@gmail.com

Email Address

Fall Line EPC

Employer

Project Manager

Job Title

If you live in an Extraterritorial Jurisdiction Area, select Yes:

Yes No

In order to assure countywide representation, please indicate your place of residence:

Wake Forest

Interests & Experiences

Why are you interested in serving on a Board or Commission?

Volunteering on the Citizens' Energy Advisory Commission is a natural extension of both my professional background and personal values. I work in renewable energy full-time, so I bring direct, hands-on experience in the industry. But beyond that, I care deeply about environmental impact, community engagement, and doing my part to give back. This role brings all of that together in a meaningful way, and that's the core reason behind my application.

Work Experience

I'm a Project Manager in renewable energy with over 5 years of experience delivering more than 300 MW of solar projects. My work spans early development through construction—including interconnection, permitting, engineering, and execution. I regularly coordinate with project developers, landowners, local authorities, and permitting agencies to move projects forward efficiently and responsibly. My role centers on aligning technical, regulatory, and community interests to deliver clean energy with long-term impact.

Volunteer Experience

While I don't have formal volunteer experience in the U.S., I've been actively involved in community-focused efforts throughout my academic and early professional life. UET Blood Donor Society - Recruited and organized blood donors on-campus for emergency needs No Smoking Campaign, UET - Launched a campus-wide awareness campaign using student media and peer engagement Noor Community Medical Camp - Volunteered at a free rural health camp, supporting logistics for medical and eye care services Rural Education Drives - Conducted awareness campaigns in underserved areas to encourage school enrollment and promote the value of education

Education

Master of Science in Mechanical Engineering, Oregon State University (2023) Bachelor of Science in Mechanical Engineering, University of Engineering and Technology, Lahore - Pakistan (2016) Project Management Professional (PMP) Certification (2025) Focus areas: energy systems, project management, and sustainable infrastructure

Comments

Wake County's commitment to 100% clean energy and carbon neutrality by 2050 strongly aligns with both my professional work in renewable energy and personal values around sustainability and community impact. I'm confident I can add meaningful, technically informed insight to the Energy Advisory Commission given my strong professional experience. I am excited to support its clean energy transition with both expertise and accountability.

[Muawia Resume - JB - April 2025.pdf](#)

Upload a Resume

If you have another document you would like to attach to your application, you may upload it below:

Please upload a file

Demographics

Date of Birth

Gender *

Male

Ethnicity *

Asian

Other

How did you become aware of Wake County volunteer opportunities?

County Website

If you selected "Other" above, how?

Please upload a file

ETHICS GUIDELINES FOR COUNTY ADVISORY BOARDS AND COMMISSIONS

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Muawia Hassan

Muawia Hassan, PMP®

Georgia, USA • hassanmuawia18@gmail.com • [linkedin.com/in/muawiahassan/](https://www.linkedin.com/in/muawiahassan/) • 541-668-5663

KEY POSITIONS

PMP® Certified Project Engineer, Preconstruction Engineer, Solar Project Developer, Energy Engineer

EXPERIENCE

Fall Line Construction, LLC

October 2024 – Present

Preconstruction Engineer

Butler, Georgia (Remote)

- *PV Design & Optimization:* Develop energy generation models using PVSyst, PVCase and other industry-standard tools to enhance performance of renewable power systems during the preconstruction phase. Tailor designs to achieve optimal AC & DC capacity and cost-efficiency.
- *Proposal Development:* Review Requests for Proposals (RFPs) for utility-scale PV projects, crafting comprehensive solar array scopes. Assess equipment specifications, contractual requirements, and performance criteria to deliver customized, high-efficiency designs.
- *Technical Evaluation:* Conduct thorough feasibility analyses based on design requirements, technical limitations, and economic considerations. Ensure optimal design solutions are achieved within scope and budget constraints.

Hypower, LLC

April 2023 – October 2024

Preconstruction Engineer / Project Engineer

Fort Lauderdale, Florida (Remote)

- *PV Design:* Create generation models in industry-standard software programs ex. PVSyst. Apply engineering principles to design, modify, or develop renewable power facilities, during preconstruction phase. Optimize project performance based on AC & DC capacity and cost parameters.
- *Proposals:* Analyze Requests for Proposals (RFPs) for utility-scale photovoltaic projects and develop the solar array scope for the basis of the proposal. Evaluate contractual obligations for PV project performance. Analyze product and/or equipment specifications and performance requirements to determine optimal designs.
- *Project Engineering and Management:* Review and analyze applicable engineering components, such as civil, structural, electrical or controls, of renewable energy projects as they relate and/or impact project performance. Determine feasibility of designs considering costs, time limitations, planning, and other technical and economic factors. Travel to project sites for data collection and during project commissioning.

Water and Energy Technologies Laboratory, Oregon State University

September 2021 – April 2023

Graduate Research Assistant

Corvallis, Oregon

- *Research:* Worked on solar thermal desalination technologies patented by the lab to treat hydraulic fracturing and seawater to hyper-saline wastewater to recycle water for irrigation and domestic usage with cost effectiveness.
- *Design Development:* Focused on design development of a heat exchanger for desalination module for heat recuperation and thermal management of the cycle. Worked published as a research paper.
This research work was a part of research sponsored by United States Department of Energy – Solar Energy Technologies Office (award number DE-EE0008402) and the US Department of Energy Advanced Research Projects Agency – Energy (award number AR-0001000).

Reon Energy Ltd.

September 2020 – September 2021

Project Developer / PV Structure Engineer

Lahore, Pakistan

- *Project Development:* Collaborated and liaison with contractors and project managers to ensure the site-specific design and delivery with cost effective solutions. Site survey of critical sites for customized structural requirements and debottlenecking any onsite structural query. Getting design and as built approvals from clients and regulators.
- *Team Management:* Coordinated with team and draftsmen to produce structural drawings as per standard documentation protocols. Provided technical advice on project feasibility and obtaining critical approvals from clients and regulatory authorities. International and local vendor management on behalf of supply chain manager.
- *Mechanical Design:* Designed module mounting structures for roof and ground mounted systems along safety testing of structure on various sites based on standards for loads (ASCE 7-16, MBMA 2006) caused by environmental or human influence and construction safety guidelines.

EXPERIENCE

- *Quality Inspection:* Evaluated the fabricated structure for module mountings and completed welding, galvanizing, and dimensional inspection to maintain quality and safety. Monitoring and inspecting all structural work undertaken by contractors on company behalf to ensure structural soundness and quality.
 - 70 MW Ground Mount Solar System at Bestway Cement Ltd. Budget \$36.5 million
 - 9 MW Solar System at Unilever Pakistan Ltd. Budget \$4.5 million
 - 3.1 MW Solar System at British American Tobacco, Pakistan. Budget \$2 millions
 - 4MW Solar system for QEERI project, REDCO, Qatar

Hadron Solar Pvt. Ltd.

May 2019 – September 2020

PV Design Engineer & Project Engineer

Lahore, Pakistan

- *Photovoltaic Design:* Designed solar systems and its components, BESS on PV*Sol and PVsyst solar simulation software with different electrical sizing, orientation, and module types for residential systems across Pakistan.
- *Energy Economics:* Performed calculations on software programs to generate system quotations, energy production and utilization reports, energy export to grid, payback time, BOQ analysis and carbon savings.
- *Project Engineering:* Led a team of 4 engineers and 10 technicians for smooth delivery of projects.
 - 330 kW Rooftop Solar System at British American (Pakistan) Tobacco Co. Pakistan. Budget \$0.3 million
 - 130 kW Agricultural Solar System at Water Management Training Institute, Punjab. Budget \$0.5 million
 - 5 MW Solar system at MS Enterprises, Lahore, Pakistan. Budget \$2.8 million
 - 10+ MW residential Solar Systems installed across Pakistan.

ILF Pakistan Private Limited

March 2017 – May 2019

Assistant Mechanical Engineer

Lahore, Pakistan

- *Project Planning:* Supported senior engineers in project plan and design using MS Project in mega projects, 100MWp Quaid-e-Azam Solar, 48MW Jagran II Hydro, LNG terminal and 18MW Harrapa Solar.
- *Business Development:* Prepared project-winning technical proposals and bids for energy projects, Solar powered tube wells under Fisheries dept with Govt. of Punjab, Quaid-e-Azal Solar extension, Walton Solar powered lights
- *Data Collection:* Visited project sites to gather information about the project feasibility and related technical parameters for preparation of project letter of interest (Sites: Batakundi, Usho, Sahiwal, Bhawalpur, Kashmir)
- *Documentation:* Reviewed and logged operation and maintenance reports from solar projects. Prepared business development reports on all projects. Prepared letters and expression of interest documents on behalf of manager.

EDUCATION

Oregon State University

March 2023

Master of Science in Mechanical Engineering with focus in Renewable Energy

Corvallis, Oregon

Thermo-fluid sciences, Renewable energy, Contemporary energy applications, International & US energy policy

Project: Heat exchanger design for a solar thermal desalination module to complete a zero liquid discharge cycle.

Published work: Anti-fouling rotating polymer-based heat exchanger for zero liquid discharge humidification-dehumidification desalination, <https://doi.org/10.1016/j.watres.2024.121749>

University of Engineering and Technology, Lahore

August 2016

Bachelor of Science in Mechanical Engineering

Lahore, Pakistan

Thermo-fluid sciences, Power plants, Energy resources & utilization, Environmental engineering

Project: Energy economics and applications of a *kalina cycle*-based waste heat recovery plant.

JOB RELATED SKILLS

- excellent leadership and team management skills: leading a team of 4 engineers and 10 technicians.
- good decision-making skills: responsible for effective group decision making and implementation on site.
- good command of HSE processes: Safety Passport holder, responsible for site safety procedures.
- time management skills: creating project timelines and meeting deadlines, follow-ups, implementing strategy.
- conflict resolution skills: keeping personal and professional relationships strong, stress management, emotional awareness, non-defensive, and respectful reactions to move past the conflict.
- good communication skills gained through my experience as Project Coordinator at Hadron Solar, bridging the gap between design and implementation team as well as coordinating with the client and vendors.

Professional memberships:

- Association of Energy Engineers – Young Energy Professional Member since 2024.
- Pakistan Engineering Council – registered engineer lifetime members since 2016
- Institute of Engineers, Pakistan – member since 2019
- Pakistan Engineering Congress – member since 2019

PROFICIENCIES

- *Solar PV Software:* PV-Sol, PVsyst, Helioscope, SketchUp, AutoCAD 3D
- *Design Software:* SolidEdge, SolidWorks, ANSYS, SAP2000, Fluent
- *Project Management and Documentation:* MS Project, MS Word and others, LaTeX
- *Languages:* English – fluent, Urdu/Hindi – native, Persian/Arabic – basic

HONORS AND AWARDS

- Received a funded Research Assistant position at WET lab, Oregon State University (2021)
- Got selected for 2nd round interview for Fulbright scholarship from United State Education Foundation (2019)
- Received a GRE fee waiver from United State Education Foundation in Pakistan for good score (2018)
- Nominated for best ‘Final Year Project’ by department of Mechanical Engineering (2016)
- Received merit-based laptop award worth PKR 50,000 from Chief Minister Punjab (2013)
- Granted a merit-based scholarship by National Outreach Program for admission in LUMS on merit (2011)
- Secured a merit-based scholarship from ILM College for outstanding performance in 11th and 12th grade (2010)
- Won English essay writing competition at Division, District and Tehsil level with worth PKR 30,000 prize (2009)
- Awarded a merit-based scholarship by PEEF for getting 94% marks in Matriculation worth PKR 72,000 (2009)

ADDITIONAL

Extra-curricular activities:

- Amal academy, an education start-up funded out of Stanford University: Completed a competitive written application and interview process to be selected from over 1500 applicants for intensive 3-month Fellowship funded by Stanford University. Invested 150 hours to develop business and professional skills (e.g., communication, leadership, problem solving, teamwork, etc.) that help make a deeper impact in profession.
- University of Engineering and Technology Media Society: Organized a “Youth, Leadership Media Symposium” attended by over 2,000 students from universities across Lahore. Founded a social media page “Humans of UET” which now has over 18,000 likes, interviewing students on campus.
- University of Engineering and Technology Science Society: Lead a team of 10 members as Director Logistics for the 2015-2016. Coordinated “Summit of Nation’s Youth, Engineers and Scientists” attended by over 3,000 students from universities across the country.

Standard exams and scores:

- GRE General: 323 (166 Quantitative, 157 Verbal, 3.5 Analytical Writing Assessment) valid through April 2023.
- TOEFL iBT: 107/120 (Reading 28, Listening 28, Speaking 26, Writing 25) expired August 2020.
- Duolingo English Test: 130/160 (Literacy 130, Conversation 130, Comprehension 140, Production 115)

Volunteer work:

- Volunteer enlisting of blood donors on-campus for UET Blood Donor Society.
- Launched “No Smoking Campaign” in UET campus using media society platform and campus walks.
- Volunteered at free medical and eye operation camp at Noor Community in my village.
- Education awareness drives in rural areas and communities to increase enrollment in local schools.

Hobbies and interests:

- Climate change, renewable energy especially solar PV research and development, geopolitics, and world affairs
- book reading (fiction, spiritual, self-help), photography, traveling, hiking, camping, fishing, DIY crafts etc.
- team sports like cricket, football, tennis, and adventure-sports etc.

Inspirations:

- Greta Thunberg (climate activist), Malala (youth activists), Abdul Sattar Edhi (philanthropist), Imran Khan (Face of change), Kamran on Bike (Cycling across the world), Shahid Khan (Pak-US businessman and engineer), Thomas Edison (America’s greatest inventor)

References: contact information to be provided on request

- [Syed Saqib](#), Assistant Professor, Department of Mechanical Engineering, UET Lahore, Pakistan.
- [Waqas Haroon Moosa](#), CEO and Director Marketing, Hadron Solar Pvt. Ltd. Lahore, Pakistan.
- [Dr. Bahman Abbasi](#), Assistant Professor, Oregon State University.