



Passionate and results-driven Electrical Engineering senior poised to revolutionize the industry with innovative electrical solutions. Eager to leverage a solid foundation in multi-disciplinary engineering and cutting-edge technology to contribute significantly to industry leaders. Committed to driving sustainability and efficiency in the pursuit of engineering excellence.

## Experience

### Siemens AG, Internship – Atlanta, Georgia

Summer 2023

- Refurbished and devised a new Dust Test Chamber and implemented modifications to align the chamber with strict UL standards. The new device resulted in 65% reduction costs and 100% increase in testing efficiency.
- Orchestrated a comprehensive strategy for integrating DC breaker testing at the Siemens UL Testing Lab. Planned installation of DC power setups facilitating accurate performance of various electrical components.
- Conceptualized a software simulation to replicate breaker short circuit simulation, significantly reducing the need and cost of physical testing by 85% which saved Siemens about \$1,000 per day.

### Samsung senior design project – Austin, Texas

Fall 2023 – Present

- Collaborating with Samsung Electronics on a cutting-edge project focused on automating the monthly generator test processes at their fabrication labs in Austin, Texas.
- Leveraging front-end user interface skills to develop a user-friendly application that will run on Samsung tablets, streamlining, and automating the test procedures.
- Integrating sensor data from the fabrication plant to monitor and optimize the generator test process.
- Orchestrate a solution that enhances operational efficiency and reduces downtime, aligning with Samsung's commitment to innovation and productivity.

### Graduate Research Laboratory – with Dr. Prasad Enjeti

Fall 2023 – Present

- Grid Shield Power Inverter Cybersecurity: Implementing watermarking techniques to detect cyber intrusions on the inverter and ensure the system's overall security.
- Developing advanced Battery Energy Storage Systems (BESS) and Stationary Energy Storage Systems (SESS) technologies, positioning myself at the forefront of battery innovation within the electrical engineering landscape.
- Engineer second-life batteries, aiming to extend their usability and environmental impact by repurposing and optimizing used batteries for secondary applications such as BESS and SESS.

### Formula Electric Society of Automotive Engineers (SAE) at Texas A&M

Summer 2022 – Fall 2022

- Administered and coordinated the electronics team in executing and implementing elementary electric circuit design in the Formula vehicle to improve performance by 10-20%.
- Communicated with the various sub-teams with engineers from over 5 majors to successfully engineer the vehicle's design and allocated the best budget for the project and decreased the cost by an average of 48%.

### Society of Hispanic Professional Engineers (SHPE)

Fall 2021 - Present

### Project Team Lead and Member at Eta Kappa Nu National Honors Society (HKN-IEEE)

Fall 2019 – Present

- Spearheaded a team of engineers from 4 majors that worked on various projects throughout the year by utilizing both hardware and software components to achieve our goals.
- Improved a previous HKN project that utilized a solar panel by engineering the panel to track sunlight which increased the power generation efficiency by 15% and used more sustainable materials.

### International Internship at Bojamhoor – Doha, Qatar

Summer 2020 – Summer 2021

- Interpreted AutoCAD blueprints for the circuitry of internet servers, HVAC systems, distribution boards, low voltage boards, fire alarms, and Honeywell smoke detector systems in 13 public schools across the nation.
- Corresponded with the Project Manager and numerous senior engineers.
- Managed and supervised my team of engineers connecting circuitry from the transformer to the distribution board in the buildings and was able to lower the project cost by 35% by researching the market for better equipment.

## Personal Projects

- Engineered and fabricated a pressure and water-resistive stopwatch for scuba divers using SolidWorks and 3D printers.
- Programmed and developed a mobile-friendly personal website using self-taught skills in HTML, CSS, and GitHub.

### Engineering IT Specialist

Summer 2022 – Summer 2023

### Engineering Peer Teacher

Fall 2020 – Present

## Education

Texas A&M University | College Station, TX

May 2024

Bachelor of Science in Electrical Engineering

GPA: 3.5

Dean's Excellence Award – Honorable mention.

## Skills

- SolidWorks, C++, PSIM, Python, MATLAB, HTML, CSS, LT Spice, LabVIEW, GitHub, Creo, ETAP, Tableau, Knime.
- English: Native or Bilingual Proficiency, Arabic: Native or Bilingual Proficiency.