Hamzah Issa

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(682) 808-2025

Hamzah's Website

Dedicated and innovative Electrical Engineering Master's Student. Passionate about advancing sustainable energy solutions and developing efficient, reliable infrastructure to address power & energy challenges.

Education

Texas A&M University College Station, TX	M.S.	May 2025	GPA: 4.0
Bachelors & Masters of Science in Electrical Engineering	B.S.	May 2024	GPA: 3.55
Latin Honors & Dean's Excellence Award			

Work Experience

Electrical Engineering Intern

SynchroGrid - Bryan, Texas

September 2024 – Present

- Designing protective relay system settings for Burns & McDonnell using Siemens Gridscale X.
- Performing calculations for **protective relay** settings on power lines.
- Simulating power system designs to ensure functionality of protective devices on electrical equipment.
- Analyzed ERCOT power system models to recommend optimized relay settings for system modifications.

Power & Reliability Engineering Intern

Valero – Houston, Texas

May 2024 – August 2024

- Developed contingency plans for loads from overhead lines to eliminate power outages, saving \$162,500/Day.
- Collaborated with CenterPoint on pad mounted transformer backup power upgrade to refinery tanks.
- Engineered upgraded 4160 V CAT cooler motors power plan to MCC at new substation.
- Managed installation of new power feeder line to crude tank farm, enhancing the refinery's power infrastructure.

Senior Design Project Lead

SAMSUNG – Austin, Texas

August 2023 - May 2024

- Automated monthly generator test processes at fabrication labs in Austin, reducing cost by 65%.
- Programmed an Android application streamlining generator test with advanced features & data analysis techniques.
- Led the team to first place on the board of directors' competition at Texas A&M.

Electrical Products Engineering Intern

SIEMENS AG - Atlanta, Georgia

May 2023 - August 2023

- Revamped UL Dust Test Chamber resulting in 152% reduction costs and 100% increase testing efficiency.
- Orchestrated a comprehensive strategy for DC breaker testing used in futuristic DC/AC hybrid power grid.
- Collaborated with Germany Team on software simulation replicating breaker short circuit simulation saving \$695/Day.
- Performed various tests on Siemens breakers at UL Testing lab facility in Tucker.

Electrical Engineering Intern

International Co-Op at BOJAMHOOR – Doha, Qatar

June 2020 - July 2021

- Interpreted AutoCAD blueprints for the circuitry of 13 public schools across the nation.
- Pulled cables from loads to distribution board.
- Collaborated with engineers on construction site planning power optimization.

Leadership & Extra-Curricular

Formula Electric SAE (F-SAE) – Electronics Team Member

Eta Kappa Nu National Honors Society (HKN-IEEE) – Project Team Lead and Member Society of Hispanic Professional Engineers (SHPE) – Technical Division Team Member Institute of Electrical and Electronics Engineers (IEEE) – Member Engineering IT Specialist Engineering Teacher Assistant

June 2022 – Dec 2022
January 2020 – Present
August 2021 – Present
August 2020 – Present
May 2022 – May 2023
August 2020 – Jan 2024

Skills

- SolidWorks, CCS, C++, PSIM, Python, MATLAB, LT Spice, Kotlin, Gridscale X.
- English: Native/Bilingual Proficiency, Arabic: Native/Bilingual Proficiency.