

Jack Alagood

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EDUCATION

Texas A&M University, Mays Business School
Master of Business Administration

College Station, Texas
August 2026

Texas A&M University
Bachelor of Science in Electrical Engineering
GPA: 3.68/4.0

College Station, Texas
May 2025

Honors: Brown Engineering Honors, Dean's Honor Award, National Recognition Scholarship Recipient

EXPERIENCE

Texas A&M University
Undergraduate Research Scholar

College Station, Texas
August 2024 – May 2025

- Used Altium Designer to model (and later solder and test) a prototype gallium nitride three-phase matrix converter topology consisting of six gate drivers, three voltage sensors, and a 230V high voltage input filter
- Published a 5,500-word thesis detailing the matrix converter and its integration with external subsystems
- Presented the concept to three faculty judges at Texas A&M's Undergraduate Research Scholars Symposium

Halliburton
Artificial Lift Intern

Tulsa, Oklahoma
May 2024 – August 2024

- Investigated variable speed drive assembly, which involves installing more than 200 components over the span of a week, for common causes of delay and product malfunctions
- Redesigned obsolete drive assembly manuals to match current bill-of-materials while simplifying steps, reducing the number of manuals from 35 to 21
- Proposed assembly changes that would cut drive lead time by as much as 10% and eliminate inconsistencies in product quality, such as switching to an assembly line rather than each technician building top-to-bottom

Interstate Batteries
SQE Project Manager

Dallas, Texas
June 2023 – July 2023

- Conducted weekly voltage compliance tests on lead-acid and lithium-ion vehicle batteries to guarantee 100% customer satisfaction and meet industry regulatory standards
- Programmed Excel macros that extract data from 10,000 line output files to summarize battery performance, accelerating sample processing tenfold and while mitigating chances of human error
- Upgraded the battery test plan to use Excel macros, formulas, and dynamic charts for better data visualization

Intertek PSI
Lab Technician

Dallas, Texas
June 2022 – August 2022

- Performed over 1,000 concrete strength and composition tests measuring structural integrity and longevity
- Oversaw lab equipment maintenance to ensure 100% compliance with company quality and safety standards
- Wrote an instruction manual for the concrete testing process, with spreadsheets embedded for calculations

SKILLS, ACTIVITIES & INTERESTS

Languages: Intermediate Spanish

Technical Skills: Python, C++, MATLAB, Visual Basic, Java, Altium Designer, PowerWorld, MultiSim, PLECS, LTSpice, Verilog HDL, Xilinx Vivado, ARMv8, MS Office Suite, soldering

Activities: SAE Solar Car Racing Team, Aggie Quant Fund, Engineering Honors Ambassadors, Engineering Honors Executive Committee

Interests: Renewable energy, battery storage, optical transmission, automation, quantitative analysis