

JACE MILLER

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EDUCATION

Texas A&M University — College Station, TX

Expected May 2027

B.S. Electronic Systems Engineering Technology (2023 – Present)

Relevant coursework: Embedded Systems, Signal Processing, Instrumentation, Circuit Analysis, Test Engineering, Power Systems

EXPERIENCE

Engineering Intern — Strategy Engineering & Consulting LLC | Houston, TX

May 2026 – Present

- Built a custom workstation from company hardware scraps to host a fully local, company-secure AI pipeline for automated P&ID (piping & instrumentation diagram) analysis, avoiding any cloud data exposure
 - Engineered a local LLM-based system (open-source models via Ollama, custom Python inference workflows) that detects and labels instruments, valves, pipelines, and equipment headers directly from P&ID PDFs, outputting annotated drawings and structured Excel deliverables
 - Reduced P&ID documentation time from a full day of manual entry to under 1 hour per revision by running the pipeline in parallel with engineers' workflows, shifting their role from manual data entry to output validation
 - Interpret P&IDs and industrial instrumentation documentation to support project engineering workflows
- More on this project at mrjacemiller.com (system architecture, tradeoffs, and results)*

PROJECTS

Radiation Test Board — Capstone with Texas Instruments

Fall 2026 – Spring 2027

- Designing and documenting a motherboard for a semiconductor test head deployed in the Texas A&M Cyclotron Institute for radiation effects testing, in industry partnership with Texas Instruments

Autonomous Line-Following Robot

- Designed, programmed, and built a three-wheeled robot in C on a TI LaunchPad microcontroller to autonomously follow a line

Cuffless Blood Pressure Monitor

- Designed a pulse-transit-time-based BP measurement device using instrumentation-amplifier circuitry for analog noise filtering

Yagi Antenna

- Designed and built a Yagi directional antenna to receive a local radio broadcast

Distortion Guitar Pedal

- Designed and built an analog distortion guitar pedal from passive and active components

SKILLS

Hardware & Test: Teradyne Eagle Test Systems (ATE), oscilloscopes, power supplies, digital multimeters, Altium Designer, OrCAD X (PCB design)

AI/ML: Local LLM deployment, Ollama, open-source model integration, prompt engineering, agentic workflows

Domain: Semiconductor device physics through CPU architecture (CMOS/MOSFET, digital logic), signal processing, embedded systems, RF, P&IDs, industrial instrumentation, Excel (advanced)

Programming: Python, C, Assembly

CERTIFICATIONS & ADDITIONAL EXPERIENCE

Certifications: Six Sigma Yellow Belt; Radiation Worker / Cyclotron Facility Certification

Customer Service: Server, Typhoon Texas, Houston (2021–2026)