

Luke Lopez

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EDUCATION

Texas A&M University

Bachelor of Science in Computer Engineering

College Station, TX

Expected Graduation: May 2026

SKILLS

Electrical Engineering Softwares: Cadence, Altium, Verilog, Multi-sim, LT-Spice

Electrical Skills: Altium Designer Experience, FPGA Development, Verilog Simulation and Debugging, Embedded System, Single-Cycle Processor Design, Circuit Analysis, MOSFET and BJT Circuit Analysis, Signal Processing, OP-AMP Circuit Analysis and Design, PCB Design

Programming Languages: C/C++, Verilog, VHDL, ARM Assembly, Python, JavaScript, HTML/CSS, LaTeX

Soft Skills: Customer Service, Team Collaboration, Conflict Resolution, Problem Solving, Time Management, Adaptability, Multitasking Leadership, Tutoring, Effective Communication

CURRENT PROJECTS

AI-Solar Capstone Project

January 2025 - Present

Team Leader for AI Solar Panel Capstone

Collage Station TX

- * **Electrical MPPT AI:** Produced AI optimizing IV curves for peak power tracking, achieving **99.4%** accuracy.
- * **Mechanical MPPT AI:** Generated AI for optimal panel orientation using simulations, with **97.2%** accuracy.
- * **Predictive AI:** Leveraged large-scale datasets to forecast energy output with **98.3%** accuracy.
- * **Web interface** Built for real-time monitoring, performance optimization, and data-driven decision-making.

ASIC OP-AMP

August 2025 - Present

Engineering with Cadence and latest manufacturing techniques

Collage Station TX

- * **Accomplishments** 2 Ghz operation range, PM = 50°, 1.2V Voltage swing, fully differential amplifier.

Digital ALU IC Project

August 2025 - Present

Developing simple components in cadence for Digital IC design.

Collage Station TX

- * **8-Bit adder** Developed using many structures: CLA, Ripple adder, etc, and evaluated tradeoffs.
- * **Completely custom** Completely designed by me, from transistors to the full architecture of the 8b adder.

PAST LEADERSHIP PROJECTS

• Single Cycle Processor

Led a team in engineering all parts of a processor using ARM, Verilog, and C

• Audio Tracker

Leading team to build an innovative audio tracker hub for locating an emitter device

• Panda Express Point-of-Sale System

Managing team to design POS system for Panda Express in a team of four. Collage Station TX

WORK EXPERIENCE

INTERNSHIP - Tutor Website Development

Summer 2024

Led improvements to a free app, enhancing student-teacher meeting scheduling

College Station, TX

IT Support Technician 3 years

January 2023 – Present

Texas A&M University IT Department

College Station, TX

- * Leading technical support for hardware and software issues, resolving over 100 classrooms.
- * Handling Panasonic Projectors, AMX-DVX control centers, CISCO switches, Vaddio cameras and others.
- * Ensured positive customer relations with professors with a 100% satisfaction record.

Research: Ai in classroom

August 2025 – October 2025

Texas A&M University ECEN Department

College Station, TX

- * Analyzed the usage of AI in classrooms and developed countermeasures to ensure academic integrity.
- * Re-Designed Lab work to optimize AI usage for students in Lab.
- * Increased lab completion rates by 20%