

# Luke Lopez

915-258-6597 | [lukelopez499@gmail.com](mailto:lukelopez499@gmail.com) | College Station, TX | US-Citizen

## 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

College 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

College 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.

College 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. College 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 EGEN 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%