# Luke Lopez

915-258-6597 | lukelopez499@gmail.com | College Station, TX | US-Citizen

## EDUCATION

**Texas A&M University**                                                          College Station, TX
*Bachelor of Science in Computer Engineering*                 *Expected Graduation: Dec 2025*

## 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%