

Gabriel Sanchez

El Paso, Tx | +1 915 433 8645 | gsanchezra@miners.utep.edu | gabrielresume.com

EDUCATION

The University of Texas at El Paso

El Paso, Tx

Master of Science in Computer Engineering / GPA: 3.50 /4.00 / *Expected: 05/2025*

Bachelor of Science in Electrical Engineering / Overall GPA: 3.50/4.00 | Major GPA: 3.52/4.00/ 12/2024

Honors & Activities

Graduated Cum Laude, 2024 (Bachelor's)

Best senior project award: Chaotic Shift Keying Communication System, 2024 (Hardware encryption)

Fast-Track Program, 2024 – Present (Accelerated master's track)

IEEE, member, 2022 – Present

University Honors Program, member, 2020 – Present

Scholarship for Monterrey Institute of Technology, university 60%, 2020

WORK EXPERIENCE

W.M Keck Center for 3D Innovation

El Paso, Tx

Research Assistant

05/2023-Present

- Designed and implemented a high-speed particle detection circuit using EAGLE software, culminating in a functional PCB creation. Successfully validated its performance by testing with smoke and particle interference, demonstrating its reliability and effectiveness.
- Utilized diverse CAD programs for part visualization, culminating in the creation of prototypes via 3D printing. This process enhanced the tangible assessment of designs.
- Prepared daily reports regarding the progress of the project; attended project meetings.
- Post-processed resin 3D printed parts. Prioritized safety with protective gear throughout the process.
- Obtained and edited data to ensure completeness and accuracy of information; followed up with subjects to resolve problems or clarify data collected.

SKILLS

General Skills: Microsoft Excel | Microsoft Word | Power Point | English | Spanish | Attention to detail | Time-Management | Teamwork | Critical-Thinking |

Programming Languages & Programs: C (advanced) | C++ | Python | Bash | Rust | JavaScript | Assembly | SQL

Software & Tools: MATLAB | Multisim | LTSpice | LabVIEW | Xilinx-Vivado | SolidWorks | Tinkercad | Autodesk Eagle | Code Composer Studio | PowerWorld

Circuit Design & Electronics: Analog Design | Microcontrollers | Circuit Building and Troubleshooting | Digital Processing | Cybersecurity & Operating Systems: Cryptography | Cybersecurity | Pthreads | Memory Management | Multithreading | Scheduling |

RELEVANT EXPERIENCE & PROJECTS

3D Printing Classes: Taught a week-long course on 3D printing to kids/teenagers at my local church, covering design and prototyping basics.

Lumolith Website: Currently developing a website for selling 3D-printed lithophanes with custom-designed frames. Integrated Shopify for online sales and secured the domain *lumolith.com*.

Electric Car Prototype Project: Engineered and built a fully operational electric car using DC motors, batteries, an MSP430 for control, showcasing skills in circuit design, programming, and systems integration.

Web-Design: Used Java-script, CSS, and HTML.