

Thomas Askharoun

askharoun2005@gmail.com | askharoun.dev | US Citizen

Education

The Pennsylvania State University – B.S. in Electrical Engineering

May 2027

GPA: 3.61/4

Professional Experience

Undergraduate Researcher, Penn State – State College, PA

Aug 2025 – May 2026

- Researching applications of LLMs integrated with XR (VR/AR/MR) systems for education and training.
- Developing prototype tools that enhance engineering learning through AI-driven immersive simulations.

Semiconductor Test Engineering Intern, iDEAL Semiconductor – Bethlehem, PA

Feb 2025 – Aug 2025

- Served as lead intern on validation of iDEAL's proprietary SuperQ™ technology, which boosts silicon utilization from 50% to 95% and reduces switching losses for high-frequency power devices.
- Operated MPI probe stations with SENTIO® software to perform wafer-level electrical tests.
- Collaborated with senior engineers and PhD researchers to validate device performance.
- Managed inventory of in-development wafers to support ongoing R&D cycles.

Electrical Engineer, NASA L'Space – Remote, AZ

Jan 2024 – Feb 2025

- Served as an Electrical Engineer on a 7-member team collaborating with MIT, Rice, and Georgia Tech Subject Matter Experts under NDA.
- Produced technical proposals and documentation in MS Office 365 that secured \$10,000 in NASA seed funding.
- Coordinated multi-time-zone operations by managing logistics, tracking member schedules, and ensuring deliverables met deadlines.

Projects

Karaoke Machine (PCB)

<https://askharoun.dev/karaoke>

- Designed and simulated a five-stage analog audio circuit in NI Multisim, progressing the concept from schematic design to a fully fabricated and soldered PCB.
- Implemented a Baxandall tone control, switchable vocal suppression for karaoke mode, and a 4-LED volume meter using op-amp topologies.
- Prototyped, tested, and debugged the complete hardware build on a breadboard, delivering a final high-fidelity audio processing unit on a PCB that I can demo for you!

Personal Website

<https://askharoun.dev/>

- Designed and deployed a personal portfolio website using HTML/CSS/JS; integrated interactive project pages and custom branding to showcase engineering and software projects.

Leadership Experience

- **Sunday School Teacher** | *Coptic Orthodox Church* | Taught and mentored 30+ middle school students, leading lessons and organizing activities that fostered teamwork, growth, and community engagement.
- **Vice President** | *Orthodox Christian Fellowship* | Organized weekly events, managed newsletter & coordinated with the student senate to raise over 700+ dollars for club activities.

Skills

Python • MATLAB • PCB Design & Layout • Bilingual in English & Arabic • Problem Solving • Team Collaboration • Adaptability • Communication • Leadership • Time Management • NI Multisim • MPI's SENTIO® Software • Github • Windows • MAC • Artificial Intelligence • Automation • Microsoft Office 365 • Fusion 360