Jonathan Mi

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Education

University of Michigan, Ann Arbor **Aug 2023 – Present**
PhD. Robotics | PI: Prof. Sean Huang
Research Focus: Soft Robotics

University of California, San Diego **Aug 2019 – Jun 2023**
B.S. Electrical Engineering
Relevant Course Work: Digital IC Design, Active Circuit Design, Control Theory, Power Systems

Work Experience

Electrical Design Engineer
Shield AI • *San Diego, CA* **Jan 2023 – Aug 2023**

- Utilize Altium Designer, SPICE modeling tools, and circuit analysis to prototype and design complex circuit board assemblies for autonomous drones and fixed wing UAV
- Integrate MCUs, communication interfaces, power regulators, motor drivers, and sensors
- Conduct design review and engineering verification of complex circuit boards
- Identify and drive process changes to improve engineering efficiency

Electrical Design and Systems Engineer
Boeing • *Seal Beach, CA* **Jun 2022 – Jan 2023**

- Actively respond to flight controls and proximity sensing systems service requests from Boeing airplane operators across all Boeing Commerical Airplane models and Military Derivatives
- Directly engage with operators to identify and diagnose aircraft issues including time sensitive Aircraft on Ground (AOG) situations
- Work with design and quality engineers to analyze and propose solutions to electrical manufacturing discrepancies and safety issues to be published in service letters and bulletins

Robotics Research Intern **Jun 2021 – Oct 2021**
Johns Hopkins University Terradynamics Lab • *Baltmore, MA*

- Designed two multi-functional legged robots capable of traversing complex terrain using CAD, 3D printing, laser cutting, and Python
- Performed terrain traversal probability experimentation using Matlab and Python
- First author of research paper presented at 2022 IEEE ICRA Conference and earned Outstanding Locomotion Award Finalist award

Computer Vision Intern **Jan 2020 – Jun 2021**
UCSD Video Processing Lab • *San Diego, CA*

- Collected data from test subjects and performed data analysis on human eye motion
- Developed computer vision systems using Matlab and Python to mimic human eye motion
- Utilized CAD, 3D printing, and laser cutting to produce low-cost computer vision test stands
- Co-author of research paper presented at the 2021 ISOCC Design Conference

Certifications

Certified SOLIDWORKS Professional (CSWP – Mechanical Design) **Oct 2019**
Dassault Systems | Credential ID: C-M34T5WK7EN

Technical Skills

- **Electrical Design:** Altium, KiCAD, LTSpice, PSpice, Cadence
- **Computer-Aided Design (CAD):** Solidworks, Onshape
- **Computer-Aided Manufacturing (CAM):** HSMWorks, Fusion 360 CAM
- **Manufacturing:** Manual Mill/Lathe, CNC Mill and Router, 3D Printing, Laser Cutting
- **Programming:** Matlab, Python, Java, C++, Arduino