Mai Vo

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EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY **Atlanta, Georgia**
Bachelor of Science, Computer Engineering Honors Program; GPA: 3.52

WORK EXPERIENCE

SpaceX - *Starship Avionics Production* *Starbase, TX*
Avionics Engineer II *February 2025 – Present*
Avionics Test Engineer *July 2023 – February 2025*

- Owned full lifecycle of avionics PCBA box products from build to test – designed test rack, harnessing, test profile, designed test fixtures in NX, and developed software automated test profiles, writing hardware drivers in Python to test multiple devices at once during qualification and acceptance testing campaigns; delivered products on schedule
- Spearheaded Starbase test capability, procured and designed environmental chambers including a HALT/HASS chamber and torch test chamber; designing system with hardware to automate tests; holding PDRs for chamber development
- Designing custom joint helium bomb & vacuum leak test chamber to test for fine leaks at weld and braze joints at connector backshell joint using a mass spectrometer & vacuum pump; creating fluids schematics, designing system to be vacuum-sealed, performing simulations in Ansys to ensure system safety, & designing test rack to automate chamber in Python
- Led cross-functional initiative to migrate from legacy work instructions platform to next-gen feeder shop instructions system, partnering with software, production, engineering, and quality teams to implement automated workflows – reducing engineering time spent by 80%, simplifying work instructions on the floor
- Developing production software features with Application Software team using C#, TypeScript, and Kubernetes
- Designed torch test chamber using heatflux sensors, data acquisition hardware, and oxygen-acetylene torch; wrote hardware drivers to communicate to insulation resistance tester for ease of harness data collection, developed UI for ease of technician operation without engineering help; trained team of techs to operate
- Performed cable/harness thermal characterization: led joint cryo and vibration test campaign – designing vibe + cryo fixture and determining vibration loads; testing harnesses for ethernet performance, insulation resistance, dielectric withstand
- Investigated feasibility of box-line production line addition including leak-testing, implementing auto-torque system; supports harness production with harness reviews, issue dispositions, hipot testing, supporting questions on the floor

Starship Crew & Cargo Mission Management *Hawthorne, CA*
Mission Management Intern *May 2022 – August 2022*

- Partnered with NASA and internal stakeholders to review and implement mission requirements; modeled docking adapter clearance zones in NX, resolving clearance and ventilation issues and driving requirements
- Developed a simulation server driver to fake data testing on Starship testbed using Python; with EMI to choose and write a spectrum analyzer driver based on ranges and specs needed

NASA Goddard Space Flight Center *Greenbelt, MD*
Electrical Ground Support Equipment Pathways Intern *May 2021 – August 2021*

- Designed & developed harnessing for EGSE test rack, optimizing rack capability via LabVIEW to integrate with Ni-DAQmx, ensuring precise, accurate measurements and logging information for solar panel deployment and hingepot resistance measurements

LEADERSHIP & RESEARCH

Space Systems Design Lab – Glenn Lightsey Research Group
GT-2 Mission Manager *May 2022 – May 2023*

- Managed avionics, structures, and software teams to develop and launch a 1U cubesat; led integration testing (vibe, TVAC)
- Coordinated with launch providers JAXA/Spaceflight to ensure launch readiness and mission

GT-2 Avionics Lead *January 2021 – May 2022*

- Directed avionics development, including acceptance tests and harness designs, developing avionics systems
- Developed acceptance test procedures for PCBA modules; debugging issues during test; designed flatsat PCBA connection 7, 52-pin cubesat panels for ease of test
- Developed stress test & logging software using Python to test microcontroller for performance optimization and temperature during TVAC testing

SKILLS

Skills:	Project Management, Harnessing, CAD, Soldering, Circuit Design, Test Automation, Production
Programming:	Python, C#, C++, HTML, CSS, Javascript, Qt, Git, MySQL, R, IDL, VHDL, TypeScript
Software:	Altium, KiCad, NX, LabVIEW, Eagle, Linux, Ansys, MATLAB