Miles Nash

(720) 475-0908 | miles.r.nash@berkeley.edu | Berkeley, CA 94720

Education

University of California, Berkeley — Dec 2025
B.S. Electrical Engineering and Computer Science — GPA: 3.7

Relevant Coursework: Electrical System Design I & II, Embedded Systems, PCB Design, Physics, Microelectronics, Computer Architecture, Digital Design (ASIC), Microfabrication, Data Structures, Computer Programming, Data Science, Discrete Mathematics, Ham Radio

Professional Experience

Tesla | *Engineering Program Management Intern* — August 2023 - 2024
- Technical product owner for keycards, keyfobs, and Model Y passive entry
- Led an interdisciplinary team of 15 to design, source, test, certify, and mass produce next-generation Tesla wireless hardware system
- Began implementing $XX million annual cost-down after coordinating system level testing and leading an executive review
- Managed DFM, prototype builds, and production line bring-up with suppliers across three continents through weekly calls

Lockheed Martin | *Software Engineering Intern* — Summer 2021
- Developed a momentum management algorithms for new commercial satellite in C and Matlab Simulink
- Worked as part of a 15 person team to integrate my code into the larger Guidance Navigation, and Controls System

Lockheed Martin | *Manufacturing Engineering Intern* — Summer 2020
- Led a nationwide team of 25+ interns to execute a virtual STEM outreach event for young students
- Applied Lean Six Sigma methods to streamline flight hardware manufacturing and earn a perfect internal audit score

Lockheed Martin | *Electrical Systems Engineering Intern* — Summer 2019
- Aided in power system development, testing procedures, and electrical integration for JCSAT-17 thermal vacuum testing
- Reviewed PCB layout documents against component documentation and corrected errors for future missions

Technical Projects

3-Stage ASIC CPU
Implemented Risc-V ISA and 4KB direct mapped cache in Verilog HDL for SKY130 PDK. Simulated RTL, debugged, synthesized, placed/routed, and analyzed using industry standard VLSI EDA tools from Cadence and Synopsys

3D Printer Host (side project)
Created a hardware/software system to monitor and remotely control my 3D printer with Alexa.
3rd place Tinkernut Home Automation Contest

Light Organ PCBA
Designed a system to visualize the effects of digital and analog filtering on a received audio signal. Selected components, created schematic/layout, and received fabricated PCB
Final project of Berkeley PCB design Class

Robot Car
Developed a voice controlled rc sized car through semester long class. Used analog filtering, system ID, closed loop control, and principal component analysis to recognize and respond to audio keywords

Extracurricular Leadership Experience

Cal Band | *Fundraising Coordinator (2022), Member* — 2021 - 2024
- Raised $100,000 in 24 hours as part of our yearly spring fundraising event
- Led a team to reach over 10,000 potential donors through Social Media and automated email marketing
- Memorized and performed 21 shows across three years as part of the University Marching Band. Member of Public Relations Committee

ASD Independence | *Cofounder, CTO* — 2021- 2022
- Big Ideas Finalist One of 16 finalist teams among 400 participants from throughout the UC system
- Pitched, developed mockups, conducted customer research, and evaluated the technical feasibility of a stimulus altering AR device

Chatfield Robotics Club | *Cofounder and President* — 2018 - 2021
- Led team to State Championship our rookie year by raising over $7000, recruiting 30 members, and building two FTC robots
- Coordinated part orders, moderated design discussions, and mentored younger engineers and leaders

NASA HUNCH Project | *Lead Engineer* — 2021
- Designed and produced 3 iterations of a 29 part error-proof trash ejection system for future missions
- Coordinated team to deliver prototype builds ahead of major design reviews with NASA engineers. Named one of four national finalists

Skills and Interests

Interests: Engineering Leadership, Hardware/Software Integration, Embedded Systems, Autonomy, Hardware Technologies, Product
Skills: Java, Python, C, Verilog, ASIC, PCBA development, Silicon Fabrication, Digital/Analog Circuits, Touchscreens, Project Management

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Tesla | *Engineering Program Management Intern* — August 2023 - 2024
- Led an interdisciplinary team of 15 to design, source, test, certify, and mass produce new Tesla wireless hardware system
- Began implementing $XX million annual cost-down after coordinating system level testing and leading an executive review
- Managed DFM, prototype builds, and production line bring-up with suppliers across three continents
- Re-launched Model 3/Y Keyfob in Australia following legal stop-sale; expanded product to new markets

Hypernova Space (10 person startup) | *Engine Development Intern, Part Time* — Spring 2022
- Designed first-of-its-kind electric propulsion system from concept to first prototype CAD model for CEO
- Synthesized 10 academic papers on plasma propulsion and ran magnetic simulations on novel hall-effect thruster design

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CS61CPU
Designed and simulated a RISC-V CPU in digital logic software
Optimized performance with two stage pipelining

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