Gabriel Fonseca

Mechanical Engineer

gafonse@berkeley.edu — Los Angeles, CA — +1 (323) 649-4996

linkedin.com/in/gafonse — github.com/m0zzaR

Education

University of California, Berkeley

Bachelor of Science in Mechanical Engineering

Skills

- **Technical:** Computer-Aided Design (SolidWorks), Analysis (Ansys), Data Machining, Fabrication
- **Programming:** MATLAB, Python, Java, Machine Learning, Robotics
- **Tools:** PCB Design (KiCAD), Excel, Git
- **Interpersonal:** Leadership, Communication, Conflict Resolution

Work Experience

Avionics Engineer — Space Technology and Rocketry

Berkeley, CA   *Aug 2022 – Present*
- Designed and built PCB boards, developed wiring harnesses, and conducted soldering for avionics system onboard a bi-propellant liquid rocket engine.
- Collaborated with a multidisciplinary team to troubleshoot and optimize avionics hardware for flight.
- Tested and validated systems, ensuring spaceflight standards compliance.

Research Engineer — Green Concrete Research Group

Berkeley, CA   *Jun 2023 – Present*
- Led the design and experimentation of more sustainable and renewable concrete using plasma reheating techniques.

Project Lead — CalHacks Berkeley AI Model

Berkeley, CA   *Jan 2023 – Feb 2023*
- Fine-tuned a custom LLAMA 2 13b model, optimizing 3500 Q&A samples for authenticity.
- Engineered chatbot to emulate UC Berkeley students using Berkeley Subreddit data.

Extracurricular Activities

Startup Founder — Tech Repair Company Q.C.

Los Angeles, CA   *Jan 2022 – Present*
- Led team of specialists in providing tech repair services for smartphones and personal computers.
- Recruited and managed team members, ensuring client satisfaction.

Event Organizer — New Space

Berkeley, CA   *Apr 2023 – Present*
- Organized Space Technology Career Fair with over 1,000 attendees and 20 industry leaders.
- Coordinated exhibits and prototypes showcasing cutting-edge research.