Zirui (Simon) Guo

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EDUCATION

University of California, Berkeley — Berkeley, CA
B.S. Electrical Engineering & Computer Sciences, Bioengineering Minor | GPA: 3.9 *Expected Graduation May 2023*

Involvement: Regents' and Chancellor's Scholar (awarded to top 2% of incoming class), Blockchain at Berkeley, Association of Chinese Entrepreneurs, Kairos Society Fellow, IEEE
Coursework: Data Structures, Structure and Interpretation of Computer Programs, Designing Information Devices and Systems
Teaching: Blockchain for Developers (Instructor), Blockchain Fundamentals (Lecturer and TA), Industry Analysis for Engineering Leaders (TA)

SKILLS & INTERESTS

Programming: Python, Java, JavaScript, SQL, HTML/CSS; (less) C++, Solidity, R, PHP
Technologies: Node.js, React, Blockchain, iOS & Android Development, Unity, UNIX, GNU/Linux, Git
Hardware: Arduino, Raspberry Pi, 3D Printing, Fusion 360, SolidWorks, Circuit Design, Mechatronics System
Languages: Fluent: English, Mandarin; Knowledgeable: Spanish
Community: Organized 3 hackathons of 300-500 participants; Competed or assisted in 28 hackathons

EXPERIENCE

Lawrence Berkeley National Lab & UC Berkeley — Berkeley, CA
Undergraduate Research Apprenticeship, CNT-MOSFET Research *Sep 2019 - Present*

- **Examine properties and effectiveness** of various Carbon-Nanotube based Field-Effect Transistors (CNT-MOSFET) structures at the radiation testing facilities of Lawrence Berkeley National Lab.
- Investigate long-range sensory system for drones to **detect radiation level** of sites with nuclear hazards.

HAX Accelerator, SOSV | No. 1 Accelerator Worldwide for Hardware Startups — Shenzhen, China
Mechatronics Engineering and Venture Capital Intern, directly supervised by firm partners *Jun 2019 - Aug 2019*

- Designed **mechatronics systems and prototypes** for most-urgent engineering challenges of accelerator's portfolio companies, including computer-vision based farm weeding robot and portable rapid genetic sequencer.
- **Evaluated new investments** and applications through due-diligence, interview, and technical deep-dive.
- Created **strategies** for new venture recruitment and expansion in Greater China Region.

Interaxon | Company behind Muse, the Most Popular Consumer Brain-Computer Interface — Toronto, Canada
Software Engineering Intern, Research and Development, directly supervised by the CTO *Jun 2018 - Aug 2018*

- Built **software architecture (Python, C++)** for driving audio soundscapes using realtime biometric data.
- Validated architectural and soundscape design through individual and group **user experience testings**.
- Integrated the designed solution into core App for Muse 2, the **second-generation** of the Muse brain-sensing headband. The product was launched and won the **CES 2019 Innovation Awards** in Fitness, Sports, and Biotech.

PROJECTS (simonguo.tech)

Phiracks, Hack the North 2017

- Created a bike rack that uses **computer vision to detect theft**; also able to execute Ethereum smart contract for each bike and session to protect bike's **identity security** across city's bike rack network.
- Implemented **Cloud Functions** backend on Google Cloud that enables the **Ethereum VM** on AWS EC2, client **iOS app**, and the **connected hardware** to update each other in real-time. Designed and built the hardware system.
- Awarded finalist (top 14 overall, **co-winners**) at Hack the North 2017 (out of 250+ teams) at the University of Waterloo and gained interest from Alphabet's Sidewalk Labs.

Selected Awards for Various Projects

- 2nd Place Overall at Product Hunt Global Hackathon 2017 (out of 8000+ participants)
- 2nd Place at SXSW Student Startup Madness 2018 (out of 64+ collegiate startups)
- 3rd Place Overall at TechCrunch Shenzhen Hackathon 2017