

Education

University of California, Berkeley

B.S. '21

M.S. '22 (expected) | Apple Scholar

Major: Electrical Engineering and Computer Science

GPA: 3.97 / 4.00

* In Progress

† Graduate-level

CS Courses: Data Structures, Algorithms, Discrete Math and Probability, Computer Architecture, Compilers, †Operating Systems, Computer Security, Artificial Intelligence, Machine Learning, Deep Neural Networks, †Parallel Computing

EE Courses: Designing Information Devices and Systems, Digital Design and Integrated Circuits (FPGA Lab), Optimization, †Hardware for ML

Experience

Apple | Hardware Technology Intern (Summer 2021) | apple.com

- Silicon Engineering Group - CPU emulation team

NVIDIA | System Architect Intern (Summer 2020, Summer 2019) | nvidia.com

- Two-time intern in the Tegra System Architecture group
- Used ML methods to predict CPU cost of networking workloads to within 15% accuracy
- Modeled power data of SoC use cases based on task scheduling and per-IP workload parameters
 - Still in use and accurate to 10% for most IPs as of Summer 2020

Oski Technology | Formal Verification Intern (Summer 2018) | oskitechnology.com

- Wrote test plan and coded checkers and constraints to formally verify an RTL design
- Interfaced regularly with customer to facilitate product understanding and clarify scope of project

U.C. Berkeley ADEPT Lab | Undergraduate Researcher (Spring 2021–present) | adept.eecs.berkeley.edu

- Exploring applications of ML and optimization techniques to hardware-software co-design

U.C. Berkeley EECS Department | Graduate/Undergraduate Student Instructor (Fall 2018–present)

- Teach weekly discussion and lab sections, host office hours, create and review course content
- Past appointments include CS 61A (programming fundamentals), CS 61C (computer architecture), and EECS 151 (digital design, FPGAs)

Skills

- **Programming:** Python, C/C++, Java, (System)Verilog; version control (Git, SVN, Perforce)
 - Familiar with Go, JavaScript, RISC-V, Chisel, SQL
 - Familiar with PyTorch/TensorFlow, NumPy, Pandas, CUDA
- **Language:** English (native), Korean (working proficiency), Spanish (elementary proficiency)

Activities and Awards

U.C. Berkeley + Apple | Master's Scholarship in Integrated Systems (Fall 2021–Spring 2022)

- Full-tuition Master's degree fellowship

U.C. Berkeley + Apple | EECS 151 Design Award (Fall 2019)

- Selected to top 3 FPGA project teams in digital design course

Pioneers in Engineering | Advisor (2021–present), Project Manager (2020–21), Director of Engineering (2019–20), Project Manager (2018–19), Software Developer (2017–18) | pioneers.berkeley.edu

- 2020-21: Led new team that built robot simulator web app to aid robotics competition participants with design of robot and test of robot code | pimulator.pierobotics.org
- 2019-20: Led software development in a club of 50+, including 5 software teams, serving 200+ high schoolers
- 2018-19: Managed project team developing robotics competition UI elements and software handling field state
- 2017-18: As a developer, implemented interprocess and interdevice communication into the field control state machine, and designed robotics competition scoreboard web app

U.C. Berkeley IEEE-HKN (EECS Honor Society) | Member (Fall 2018–present)