Charles Hong

charleshong@berkeley.edu (503)707-5695

Education

University of California, Berkeley
B.S., degree anticipated 2021
Major: Electrical Engineering and Computer Science
GPA: 3.96 / 4.00

* In Progress

CS Courses: Data Structures, Algorithms, Discrete Math and Probability Theory, Computer Architecture, Upper Division Computer Architecture, Operating Systems, Artificial Intelligence, Intro to Teaching CS, *Compilers

EE Courses: Designing Information Devices and Systems I/II, *Digital Design and Integrated Circuits (FPGA Lab)

Experience

NVIDIA | Architecture Intern (Summer 2019) | nvidia.com

- Modeled power and performance of the SoC as part of the Tegra System Architecture group

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

- Wrote test plan and coded checkers and constraints to formally verify an RTL design
- Learned and utilized the HDLs Chisel and SystemVerilog, as well as JasperGold for formal verification
- Interfaced regularly with customer to facilitate product understanding and clarify scope of project

U.C. Berkeley Computer Science Department | Undergraduate Student Instructor (Fall 2018–Fall 2019)

- Fa18/Sp19: Teach weekly 90-minute discussion sections and labs for 30+ students and host office hours for CS 61A (programming fundamentals course)
- Fa19: Similar responsibilities for CS 61C (computer architecture)
- Create and review course content including exam questions, discussion slides, lab assignments, and supplementary materials

Skills

- **Programming:** Python, Java, C, (System)Verilog; version control (Git, SVN, Perforce)
    - Familiar with Chisel, HTML/CSS, JavaScript, RISC-V Assembly, SQL, Scheme, NumPy
- **Language:** English (native), Korean (working proficiency), Spanish (elementary proficiency)

Activities and Awards

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

- Lead all software development in a club of 40+, including 5 software teams
- Previously, managed project team in developing software that manages robotics competition UI elements and field state
- As a developer, used Python to implement interprocess and interdevice communication into the field control state machine, and designed robotics competition scoreboard using HTML, CSS, and JavaScript
- Worked with Business Operations group to raise funds towards an over $50,000 budget by contacting and gaining sponsorships from local companies

Computer Science Mentors | CS 61A Junior Mentor (Spring 2018) | csmberkeley.github.io

- Held weekly group tutoring sessions and met with students individually to provide extra support

U.C. Berkeley Computer Science Department | Academic Intern, CS 61A (Spring 2018)

- Tutored and assisted students in labs and office hours

Game Design Club | Co-founder (2015) and president (2016–17)

- Guided members in developing games for iOS/Android in Unity to release on Google Play Store

ACE Coding | Volunteer (2014), Teacher (2016–17) | acecoding.org

- Volunteered to teach principles of coding through Scratch and Java to over 25 local middle schoolers in weekly after-school program
- Helped run “Code Day” event with several hundred participating

U.C. Berkeley College of Engineering | Dean’s List (Fall 2017–Spring 2019)
U.C. Berkeley | Edward Frank Kraft Award for Freshmen (Fall 2017)
U.C. Berkeley Eta Kappa Nu | Member (Fall 2018–present)