

SUMMARY: I am a Berkeley Math and Computer Science double major with an interest in doing research in cryptography and theoretical computer science. I have 6+ years of programming experience and teaching myself advanced math topics. Using a mix of theoretical and practical skills, I am keen to explore the underlying principles behind computer science.

Computational Pathology Lab, Berkeley and UNC (URAP Continued)

June 2024–August 2024 [Full Time]

Full-Time Research Apprentice

- Expansion of annotation collection framework, enhancing the application of machine learning techniques in cancer diagnostics and clinical pathology research
- Weekly paper readings on machine learning and biomedical concepts

Berkeley Undergraduate Research Apprenticeship Program (URAP),
Research Apprentice

February 2024–May 2024

- Contributing to the development of an open-source annotation collection framework to accelerate the use of machine learning in cancer diagnosis and clinical pathology research
- Collaborating with an interdisciplinary team of data scientists from Berkeley and the KTH Royal Institute of Technology
- Developing the front and backend of the annotation application while incorporating AI-assisted annotation technologies
- Working closely with clinicians from UCSF to optimize the annotation platform for usability
- Helping write papers surrounding the software development

UCSD and League of Amazing Programmers

January 2019–March 2022

Web Development Intern

- Worked on the “Mousetrap” Project, a collaborative effort with the League of Amazing Programmers and UCSD to create an application for better managing lab mice for experiments
- Developed the front-end interfaces of the app with ReactJS and Node JS, enhancing user experience and interface functionality
- Collaborated with a team of developers, contributing to project planning, implementation and development over GitHub and Slack
- Contributed to back-end development of the app with Python server-side logic and Docker instances, enabling efficient database management and calculations

Technology Academy, Ellen Browning Scripps Elementary

July 2018–August 2022

Lead Programming Tutor

- Worked in an after-school program within E.B.S. Elementary aimed to foster early interest in programming and computer science topics in middle and elementary school students
- Adapted teaching methods to accommodate for the different learning styles of each student, ensuring understanding of complex topics
- Designed and delivered an engaging programming curriculum, introducing programming fundamentals in Java, Python and early Computer Science topics
- Stimulated a positive and interactive learning environment, encouraging student participation and curiosity in computer science

EDUCATION

UC Berkeley, Berkeley, CA

Graduating Spring 2026

Math and Computer Science Major (GPA: 3.82)

- Coursework: CS 61A, CS61B, CS70, MATH 54, MATH 110, MATH 113
- Clubs: Berk1337

SKILLS AND AWARDS

- AP Computer Science Perfect Score (ranking in the top 0.47% globally)
- CollegeBoard National Hispanic Scholarship Award
- California Scholarship Federation and National Honors Society (9, 10, 11 and 12th)
- Programming Languages:
 - Proficient: Java, Python, C/C++, JavaScript, C#, Lisp (Racket and Scheme), Linux command line, SQL, Go, Forth
 - Familiar: Rust, Haskell, R, x86 asm, Verilog, OCaml, Zig
- Web Development: NodeJS, ReactJS, VueJS, Express, HTML and CSS
- Other Technologies: Docker, Git/GitHub, Linux/*BSD system administration, TensorFlow, Scikit learn, 3D printing
- Self taught in compiler and programming language design, FPGA circuit design, computer architecture, theoretical CS concepts and cryptography, machine learning and deep learning concepts
- Soft Skills: Communication, Self-motivated, Passionate, Problem-solving, Teamwork, Leadership
- Fluent in English and Spanish