LARYN QI

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EDUCATION

University of California, Berkeley Class of 2023 **GPA: 3.826/4.0**

B.A. Computer Science & Music

Relevant Coursework: Data Structures & Algorithms · Computer Architecture · Computer Security · Data Science · VR Development
Linear Algebra & Circuits · Discrete Math & Probability · Machine Learning for Music · Sound & Music Computing

EXPERIENCE

UC Berkeley EECS Course Staff | Berkeley, CA January 2020 - Present

CS61A Tutor · Undergraduate Student Instructor (Summer 2020) · Outstanding Academic Intern (Spring 2020)

- Holding weekly discussions & office hours and answering Piazza questions for introductory CS class of 1000+ students (1400+ in SP20)
- Developing and maintaining course software/infrastructure, reviewing content, overseeing/proctoring exams, managing course website
- Teach CS fundamentals: recursion, abstraction, trees, OOP, linked lists, complexity, REPL/interpreters, macros (Python | Scheme | SQL)

AFX Tech Committee | Berkeley, CA September 2019 - Present

Project Lead

- Developing a music manipulation and player app for UC Berkeley dance organization of over 800 members (Android, React Native)
- Using Android's MusicPlayer API to read, navigate, loop, edit and visualize any song while communicating with the app's website
- Familiarizing new team members with version control, code structure, workflow, and agile development cycle
- Lead bug fixing process by reviewing code and maintaining clear and detailed documentation for future club members

Extended Reality at Berkeley | Berkeley, CA January 2020 - Present

Virtual/Augmented Reality Course Instructor

- Facilitating student-taught XR course by giving lectures, developing content, grading homeworks, supervising labs, and managing Piazza
- Holding technical workshops to onboard new club members and get them up to speed on XR, Unity, and C#

Computer Science Mentors | Berkeley, CA January 2020 - Present

CS61A/B Mentor

- In charge of leading weekly mentoring sections for students in Berkeley's introductory CS classes (SICP, Data Structures & Algorithms)
- Preparing lessons/worksheets, delivering mini-lectures, going over problems, and hosting review sessions on core CS topics

Code in Place | Stanford, CA April - May 2020

CS106A Section Leader

- Part of a teaching team for Code in Place, offered by Stanford during the COVID-19 pandemic, with 10,000 global students and 900 volunteer teachers participating from around the world
- Prepared and taught a weekly discussion section of 10-12 students to supplement professors' lectures in a 5-week online Python programming course based on material from the first half of Stanford's introductory programming course, CS106A

PROJECTS

Robot Open Autonomous Racing (ROAR) | Berkeley, CA October 2020 - Present

Undergraduate Researcher

- Working under Dr. Allen Yang to simulate an autonomous racecar using CARLA as a software developer on the Map Making team
- Scanning, processing, and cleaning pointcloud map data of Berkeley in MeshLab and porting mesh to Unreal Engine using Maya

ok-disc | Berkeley, CA July 2020 - Present

Software Developer

- A lightweight Python client for students to autograde and debug their Python, Scheme, and SQL code during virtual discussion sections
- Currently being used by 330+ Berkeley intro CS students through Computer Science Mentors, a teaching organization on campus

uMaps | Stanford, CA February - May 2020

Backend Software Developer

- Indoor mapping iOS app with multi-floor and disability/accessibility capability designed to help students navigate to rooms in buildings
- Implemented a object-oriented approach to handling building/floor plan data and used the A* algorithm to efficiently find paths

COSMOS | San Diego, CA July 2017- August 2017

Music and Technology Research Fellow

Awards & Honors: Best Biomechanical App

- Studied and worked on a project under the mentorship of UCSD PhD Professor of Computer Music Shlomo Dubnov
- Combined software and hardware in an embedded electronics project to make the Hand Jammer, a portable glove that allowed the wearer to emulate the sound and feel of playing a real drum set at the press or bend of a finger

SKILLS

Proficient: Python · Java · Android · Unity + C# · HTML/CSS · Git · Unix Max/MSP · Assembly Language · Scheme
Familiar: Unreal · Maya · C · React Native · JavaScript · Flask · MongoDB · Firebase · SQL · NumPy · pandas · Selenium · Circuits
Other: LaTeX · Mandarin (conversational) · French (conversational)