Aaron Yu

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Education

University of California, San Diego   *3.96 GPA*

B.S. Computer Science   *Spring 2024*

B.S. Cognitive Science (Specialization: Design and Interaction)

- **Regents Scholar:** scholarship awarded to **1% of UCSD students** on the basis of academic excellence
- **Coursework:** Machine Learning, Interaction Design, Data Structures, Algorithms, Systems Design, Functional Programming

Work Experience

LinkedIn   *Sunnyvale, CA*

Mobile Engineer Intern   *Jun. 2023 - Present*

- Incoming summer intern at LinkedIn. Will be working in **Swift** and **Objective-C** on improving LinkedIn's Job Search page.

MaXentric   *San Diego, CA*

Software Engineer Intern   *Jun. 2022 - Sep. 2022*

- Designed and built hybrid web, iOS, and Android app using **Ionic** and **Capacitor** frameworks in **Vue.js** with **TypeScript** to interface with medical device microcontroller over Bluetooth LE and graph electrocardiogram data in real time.
- Implemented frame check sequence in **C** for Wi-fi MAC layer on Xilinx FPGA towards building reliable 5G millimeter-wave radio platform.

UCSD Computer Science and Engineering Department   *San Diego, CA*

Instructional Assistant   *Aug. 2021 - Present*

- Taught **500+** undergraduate students **C**, **C++**, and **ARM** assembly for systems programming and data structures courses.
- Hosted guided lab hours and one-on-one sessions to assist students with pointers and memory management, basic processor circuits, **Linux CLI**, and data structures.

Social Chat   *San Francisco, CA*

Software Engineer Intern   *Jul. 2021 - Sep. 2021*

- Redesigned homepage for livestreamed video shopping platform in **JavaScript**, **HTML**, and **CSS** to optimize conversion rate and improve usability.
- Employed **Django** and custom **Bootstrap** templates to automatically populate and update webpage information from back-end **PostgreSQL** database, eliminating the need for manual data entry and styling.

Projects

ZooSeeker: Automated shortest-route planner for the zoo   *Mar. 2022 - Jun. 2022*

- Developed Android app to plan shortest pedestrian routes through selected exhibits at the San Diego Zoo.
- Leveraged Android's **Location API** and **JGraphT** to redirect users based on their actual current location in real time.
- Employed **agile** development principles using **GitHub** and **ZenHub**, allowing **team of 6** to collaborate effectively.
- Built unit, integration, and systems tests in **JUnit**, **Espresso**, and **Robolectric** to validate correct behavior.

Surfn: Matchmaking-based video-calling for college students   *Aug. 2020 - Jul. 2021*

- Developed backend for matchmaking-based video-calling iOS and Android app for college students.
- Employed transactions and batched writes with Google **Firebase**/**Firestore** to allow for multi-threaded operation.
- Tracked user feedback to improve matchmaking by writing **Python** interface to **PostgreSQL** database.
- Built load-testing library employing **Docker** and **docker-compose** to test matching algorithm with simultaneous matches.

Leadership

Association for Computing Machinery at UC San Diego   *San Diego, CA*

Vice President Finance   *Apr. 2021 - Present*

- Executive board member of the Association for Computing Machinery, the largest computing organization on campus with **1700+ members.**
- Oversaw **5-member** finance team responsible for funding events and merchandise through corporate sponsorship and internal fundraising.
- Spearheaded communication with UCSD faculty to establish internal logistics for **100+ events** each year.
- Raised over **$10,000** through collaboration with university and industry partners.

Skills

Languages	Python, C++, Swift, Rust, Java, C, Objective-C, SQL (Postgres), JavaScript, TypeScript, HTML, CSS, Haskell, Verilog, R, Bash
Developer Tools	Git, Docker, Make, XCode, Postman, pgAdmin 4, Amazon AWS EC2, Google Firebase, Facebook Watchman, GDB, TCL, Valgrind
Frameworks	Vue, React Native, Ionic, Capacitor, Quasar, Django, JUnit, Espresso, Robolectric