Aaron Yu

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Education

University of California, San Diego *Spring 2025*

M.S. Computer Science *4.00 GPA*

University of California, San Diego *Winter 2024*

B.S. Computer Science *3.96 GPA*

- **Regents Scholar:** scholarship awarded to **1% of UCSD students** on the basis of academic excellence

Work Experience

LinkedIn *Sunnyvale, CA*

Software Engineer Intern *Jun. 2024 - Sep. 2024*

- Implemented and optimized backend **gRPC** endpoint for collating resume data as part of AI agent data pipeline, achieving latency reduction of **20-40%** through effective parallelization of database requests.
- Leveraged **PySpark** and **Trino** to process large datasets on **Hadoop** HDFS, deriving insights informing critical design decisions.
- Researched and implemented a process for integrating analytics data into a shared dashboard, enhancing visibility of key metrics and streamlining further data onboarding by team.

Mobile Engineer Intern *Jun. 2023 - Sep. 2023*

- Implemented upsells for new features on LinkedIn's iOS application in **Swift** and **Objective-C** towards driving increased Premium subscriptions.
- Utilized **GraphQL** to build reusable **UIKit** components from API-driven content, maximizing code reuse and minimizing technical debt.
- Wrote unit, layout, and scenario tests utilizing the **XCTest** framework in order to minimize regressions and reduce debugging time.

MaXentric *San Diego, CA*

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

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

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

Instructional Assistant *Aug. 2021 - Mar. 2023*

- 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, **Linux CLI**, and data structures.

Loup.ai *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 webpages from backend **PostgreSQL** database.

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.

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.
- 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 - Apr. 2022*

- 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 **100+** events each year through maintaining university and corporate sponsorships.

Skills

Languages Python, Java, Swift, Rust, C++, C, Objective-C, SQL (Postgres), JavaScript, TypeScript, HTML, CSS, Haskell, Go, R, Bash

Developer Tools Git, Spark, Hadoop, Docker, Make, XCode, Postman, Google Firebase, Facebook Watchman, GDB, Valgrind

Frameworks gRPC, GraphQL, Vue, Ionic, Capacitor, Quasar, Django, UIKit, XCTest, JUnit, Espresso, Mockito, TestNG