

Mohamad Saleh

Software Engineer

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EDUCATION

California State University, Los Angeles

Master of Science in Computer Science

Aug. 2024 – June 2026

Los Angeles, CA

University of California, Santa Cruz

Bachelor of Science in Computer Science

Sept. 2020 – March 2023

Santa Cruz, CA

EXPERIENCE

Undergraduate Software Engineer Research Assistant

June 2021 – Sep 2022

University of California, Santa Cruz

Santa Cruz, CA

- Deployed and led the development of a Full-Stack Website, implementing several pages and efficient navigation.
- Served as Agile Scrum Master, overseeing stand-ups, sprints, and maintaining Trello issue tracker.
- Researched the impact of Distribution Shift and contributed to a published paper on machine-learning platforms.

Full-Stack Web Engineer Intern

June 2022 – Sep 2022

CodeDay

Remote

- Deployed a Full-Stack web application that expedites portfolio generation for users, based off Figma designs.
- Optimized data handling efficiency through the implementation of a robust marshaling architecture, reducing data processing times.
- Authored comprehensive engineering design documents, streamlining the development process, leading to a reduction in development time.
- Elevated code quality and project collaboration by overseeing peer-reviewed pull requests, fostering a collaborative team environment.

Java Full-Stack Engineer Intern

June 2021 – Aug 2021

CodeDay

Remote

- Designed, implemented, and deployed a resume generator that quickly generates a professional resume
- Engineered an automated email service to send PDF copies of resumes, ensuring user satisfaction.
- Followed RESTful API structure to support communication between clients and servers, enhancing robustness.

Mobile Full-Stack Application Intern

June 2020 – Aug 2020

Lyrst

Remote

- Revamped the Android version to align with the latest Google standards, leading to successful redeployment.
- Deployed a new major feature driven by habits of 100+ daily active users from Firebase user analytics, increasing user engagement based on data.
- Performed extensive internal testing procedures, achieving full code coverage.
- Development was agile, leading to increased team cohesion and organized project management.

PROJECTS

Multi-threaded HTTP Server | *C, Socket Programming, Docker, Git, Bash Unit Test Scripts*

- Developed a robust server, achieving compliance with HTTP, supporting response codes ranging from 200 to 505.
- Employed a highly modularized architecture, enabling seamless scalability, and bash unit testing in isolation.
- Used a thread-safe circular buffer to batch incoming requests efficiently, and used locks around critical sections shared between concurrent requests ensuring no atomicity or memory violations.

Multi-threaded GPU vs CPU K-Nearest Neighbors Particle Simulation | *JavaScript, WebGL, Git, Google Canary*

- Calculated optimal paths for trajectory adjustments using the distance formula and unit vectors.
- Achieved parallelism in JavaScript by utilizing a shared array buffer, resulting in a shared memory abstraction that facilitates inter-worker communication akin to that of C++.
- Created graph-based performance visualization and data interpretation for quantifying performance gains.

TECHNICAL SKILLS

Languages/Skills: C/C++, Parallel Programming, C#, Java, Python, HTML/CSS/JavaScript, Typescript, SQL

Frameworks: React, React-Native, Next.js, Node.js, .Net, JUnit, Jest, Material-UI

Developer Tools: Git, Docker, Bash, Unix Terminal, VS Code, Visual Studio, PyCharm, IntelliJ, Android Studio