Mohamad Saleh

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EDUCATION

California State University, Los Angeles   May 2026
Master of Science in Computer Science   *Los Angeles, CA*

University of California, Santa Cruz   Spring 2023
Bachelor of Science in Computer Science   *Santa Cruz, CA*

EXPERIENCE

Machine Learning Researcher   Sept 2024 – Current
San Jose Research Foundation   *Los Angeles, CA*
- Developing a YOLO V8-based machine learning model to identify and label construction vehicles with 94% accuracy.
- Engineered a full-stack application utilizing our machine learning model to automate highway construction site monitoring for CalTrans, reducing manual tracking time by 70% and enabling real-time management of several construction sites through an integrated dashboard
- Writing Python scripts to automate data integrity checks, improving accuracy substantially.

Associate Backend Software Engineer   May 2024 – Sept 2024
Sunsab   *Remote*
- Engineered and managed a resilient HTTPS compliant .NET web server deployed in a cloud-based Docker container, ensuring 99.9% uptime and seamless scalability to current demand needs.
- Wrote Trigonometric-based algorithms to calculate well-bore drilling data, and visualized results on interactive 2D and 3D graphs using Three.js, enhancing data analysis and interpretation.
- Implemented data handling functions to translate thousands of lines of JSON data into downloadable Excel spreadsheets for user consumption.

Undergraduate Software Engineer Research Assistant   June 2021 – Sep 2022
University of California, Santa Cruz   *Santa Cruz, CA*
- Led the end-to-end development of a Next.js based Full-Stack Website, translating designs into fully functional pages and ensuring a seamless user experience from concept to deployment.
- Deployed and managed the application using a Docker container on a cloud-based Digital Ocean droplet, ensuring high reliability, seamless scalability, and minimal downtime.
- Conducted in-depth research on the impact of Distribution Shift and co-authored a published paper on machine-learning platforms, contributing valuable insights to the field.

Full-Stack Web Engineer Intern   June 2022 – Sep 2022
CodeDay Labs   *Remote*
- Deployed a Full-Stack Next.js web application that expedites portfolio generation for users, using 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.

Mobile Full-Stack Application Intern   June 2020 – Aug 2020
Lyrist   *Remote*
- Rewrote app to React Native, leading to successful redeployment on both IOS and Android.
- 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 using Jest.

TECHNICAL SKILLS

Languages/Skills: C/C++, C#, Java, Python, .NET, HTML/CSS/JavaScript, Typescript, Parallel Programming, SQL, AWS, Cloud Architecture, Data Science, Machine Learning, Embedded programming, ROS 2
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