

# Rohan Sehgal

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## Education

University of California, San Diego

June 2025

M.S. in Computer Science, Focus: AI/ML

Major GPA: 4.0 / 4.0

Relevant Coursework: Data Structures and Algo, Distributed Systems, Operating Sys, Machine Learning, Foundational Programming, Analysis of Algorithms, Computer Architecture, Linear Alg, Discrete Math, Probability and Statistics

## Technologies

Languages: Python, C++, Java, C, Swift, ReactJS, Javascript, Tailwind CSS, SQL, Objective-C, Haskell

Tools: Git, REST APIs, Amazon Web Services, Django/Flask, Pandas, Postgres, Selenium, Jupyter Notebooks, XCode

## Professional Experience

Amazon Robotics | Virtual Systems - Typescript, AWS EC2, Batch

September 2024 - Present

Software Development Co-op

Westborough, MA

- Building custom **AMI** to standardize **EC2**, installing Docker, NVIDIA drivers, and ECS agent configurations, cutting setup time and ensuring consistent, high-performance execution for GPU-accelerated tasks
- Developing automated integration tests to ensure stability for **large-scale synthetic data generation**

Salesforce | Autonomous Response Team - Python, Langchain

June 2024 - August 2024

Software Engineering Intern

Bellevue, WA

- Developed **IAM Copilot** to automate and optimize internal IAM support using a GenAI-driven backend system
- Utilized Python and **LangChain**, reducing operational delays and enhancing security responsiveness for **7,500+** users
- Backend integration with Slack UI, boosting real-time user engagement and speeding access to support

Paytote | Python, SwiftUI, NextJS, AWS (Amplify, DynamoDB, API Gateway, Lambda)

December 2023 - June 2024

Founder

Santa Cruz, CA

- Developed a **Swift-based iOS app** for **automated** receipt tracking, using **Square Payment API** and **AWS**
- Built website for stores to download extension with **NextJS**, **Tailwind** and implemented Square OAuth
- Enhanced efficiency and scalability using **AWS cloud technologies**, ensuring secure receipt processing

Capital One | Python, XGBoost, Dask, Optuna, Pandas

June 2023 - August 2023

Software Engineering Intern - Focus on Machine Learning

Philadelphia, PA

- Set up a **multi-node GPU distributed** training system using **DASK** to reduce **XGBoost model training time**
- Integrated the training system with a **ChromaDB** vector database and tuning model accuracy with **Optuna**
- Sped up data loading time by **10x** with data iterator and migrated existing work to **Kubeflow Pipelines**

Campus Cuisine on the Apple App Store | SwiftUI, Amazon Web Services, REST APIs

December 2022 - May 2023

Founder (led team of 5)

Santa Cruz, CA

- Created **iOS app** (**380+** users) to display dining hall menus across university campuses using **Swift/SwiftUI/UI Kit**
- Utilized **AWS API Gateway (REST)**, **Lambda**, **S3**, **IAM**, **EventBridge** to automatically update menus
- Implemented **Google AdMob** and reduced memory by **267%** with **AWS infrastructure automation** practices

SAP National Security Services | Javascript, SQL, SAP Frameworks

June 2022 - December 2022

Software Engineering Intern

Remote

- Developed **5+** advanced analytics dashboards using **SAP front-end frameworks**, **Javascript**, and **SQL** for causes such as NOLB, a veteran-run charity focusing on evacuating Afghanistan interpreters and family
- Created incident reporting software service using **SAC**, allowing NS2 to view **130+** companies' customer data
- Revamped internal team's **SAP Solution Manager** to perform highly efficient **SAP HANA TPOs**

Datafly | Javascript, HTML, CSS, Google APIs

February 2022 - June 2022

Full-Stack Developer

Santa Cruz, CA

- Designed Shopify extension analytical tools using a combination of **Javascript**, **HTML**, and **CSS**
- Integrated **Google OAuth 2.0 API** to implement simple sign-on and several other **Google API** features

## Projects (All GitHub Projects can be found at <https://github.com/rohseh303/>)

VibeMaps, CalHacks 2023 | React Native, ConvexDB, LLMs (together.ai)

- Developed a **full-stack** app to analyze Spotify listening data to output a trendy daily 'vibe' for users to share with others
- Led client-side development, utilizing Spotify OAuth and ConvexDB, and integration with custom LLM