

Ashwin K. Aggarwal

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EDUCATION

University of California, Berkeley, M.S. EECS '23, B.A. Computer Science '22

Coursework: Data Structures, Efficient Algorithms, Machine Learning, Linear Algebra, NLP, Deep RL

WORK EXPERIENCE

Salesforce, Health Cloud, Software Engineer MTS

July 2023—Present

- Led full-stack development of Intelligent Appointment Management (IAM) that improved appointment scheduling; created a reusable component library that expedited future development.
- Led the end-to-end development of the organization's first Patient Services Agent, allowing patients to find providers nearby. Agentized IAM backend actions, enabling dynamic parameterization while enforcing security and ethical compliance.
- Designed and implemented a generic FHIR-compliant middleware layer to sync Salesforce with EHRs like Epic, enabling real-time EHR appointment bookings, modifications, and cancellations from within IAM.
- Engineered an asynchronous backend for large-scale healthcare appointment modifications using Apache Kafka. Designed failsafes for partial successes with retry mechanisms and data integrity checks.
- Architected Health Cloud's first GenAI product, combining AWS OCR & GPT-4 for healthcare automation. Built the upload UI and the backend to extract text, process it with an LLM, verify integrity and mask PII.

Salesforce, Marketing Cloud, Software Engineering Intern

May 2021—Aug 2021, May 2022—Aug 2022

- Built data-pipelines to incorporate new signals into prior summer's database health anomaly detectors.
- Developed multiple multi-variate regression based anomaly detectors that sped up detection times by 30%.
- Led the design and implementation of automated feedback software to improve detection accuracy.
- Created a Python package to read in Splunk data, gauge release health, & generate reports for stakeholders.

CodeHS, Software Engineering Intern

Jun 2020—Nov 2020

- Built a common UI image upload component, optimizing the integration of upload functionality site-wide.
- Developed a dashboard for teachers to view student quiz scores, retake attempts, and overdue assignments.
- Designed and drove the backend, frontend, and data model upgrades for the quiz retake feature.

PROJECTS

Fantasy Valorant

Feb 2022—Present

- Built a full-stack site that allows esports fans to create a fantasy Valorant league with Django & PostgreSQL
- Implemented web scraper to collect match statistics from pro matches, applying a custom scoring algorithm.
- Predicted match outcomes using scikit-learn and visualized player performance with chart.js.
- Automated fantasy match updates and leaderboards via CRON jobs and AWS lambda.
- Implemented dynamic roster management system and custom data model to store pre-fetched match data.

Points

Dec 2020—Apr 2021

- Built and deployed an iOS application for cooperative housing managers to facilitate house activities, SwiftUI.
- Designed robust transaction management engine, authentication system, event calendars, and onboarding flows.
- Cultivated a point marketplace within 2 Berkeley houses, optimizing operations efficiency.

LANGUAGES & SKILLS

Python, Java, JavaScript, Swift, SQL; Firebase, GraphQL, React, Django, Ajax, PyTorch, Pandas, Numpy