Andrew Ho

github.com/anmho
andrewho.io

Education

University of California, Irvine Expected June 2025
B.S. in Computer Science, Minor in Statistics ***GPA 3.8***
Coursework: Data Structures & Algorithms, Computer Architecture, Machine Learning, Databases, Design & Analysis of Algorithms, Probabalistic Graphical Models, Info Retrieval & Data Clustering, Distributed Systems

Experience

Snap Inc. | **Backend, Data Infrastructure** June 2023 – Present
Software Engineer Intern *Santa Monica, CA*

- Developed distributed transactional stream processing system platform using **Kafka**, **GCS**, **Java**, and **Druid**, enabling real-time data insights for monetization & ML models, supporting **8 billion transactions/day**
- Optimized multi-dimensional range partitioning algorithm for **Dataflow (Beam)** pipelines in **Scala** using **quantile sketches** improving ad-hoc query performance and resource consumption on hot-keys by **22%**
- Orchestrated **Kafka** event streaming cluster with **Strimzi** operators, **Google Kubernetes Engine**, and **Helm**

University of California, Irvine | **Backend API Development** Dec. 2022 – Jun. 2023
Backend Software Developer *Irvine, CA*

- Built data exploration tool to explore employee performance and seamlessly export tables tables to annual report template, saving **100+ hours** of employee hours at fiscal year end using **C# ASP.NET**.
- Streamlined employee management workflow and automate promotion tracking and event booking features for features using **C#**, **Angular, TypeScript, MUI**, and **SCSS**

Saplink | **Backend API Development** June. 2023 – Present
Backend Software Engineer Intern *Irvine, CA*

- 4th employee. Built backend using **Nest.js** and **PostgreSQL** to connect talented engineers to early stage founders
- Integrated OAuth2 with **auth0** to deliver one-click workflow automation tools with Octokit.js **GitHub SDK**.
- Deployed Docker containerized app to **AWS EC2** for successful academic year launch of **5000+** users

Snap Inc. | **Full-Stack** June 2022 – Aug. 2022
Software Engineer Intern *Santa Monica, CA*

- Developed **Snapchat** food scan feature to match unfamiliar ingredients to recipes, tutorials, snack facts.
- Integrated **Apple Maps API** to find affordable ingredients in user's proximity using React-Native.
- Collaborated with UI/UX design, marketing, and non-profit, ***Our Own*** to analyze product-market fit.

Projects

Bankly - Peer Payments & Banking | *Stripe, Spring Boot, Java, Python, Kubernetes* April 2023 – May 2023

- Implemented peer-to-peer transactions, similar to **Venmo/Zelle** using **Stripe API** and **Java Spring Boot**
- Utilized **Plaid API** to handle bank integrations and fetch bank transactions, credit, and investment data.
- Developed Flask microservices to display user finance analytics with **ARIMA** to analyze spending patterns and **LSTM** and **isolation forest** models for **fraud detection** with **Flask**, hosted on **AWS EKS**

Watchlist - AI Movie Recommendations | *Python, Flask, React, PostgreSQL, Docker* Sept 2023 – Present

- Trained **collaborative filtering ML ranking model** on MovieLens dataset with over **2.5 million** ratings using ensemble methods including cosine similarity and distributed training techniques for rapid model updates.
- Utilized **gRPC, mTLS** for inter-service communication with retries, load balancing, and **Redis** for scalability.

Technical Skills

Languages: Python, Java, TypeScript, Go, Scala, JavaScript, HTML, CSS, SQL, R, C, C++
Frameworks: Spring Boot, Flask, Kubernetes, Docker, gRPC, GraphQL, AWS, Google Cloud, React.js, PostgreSQL, MySQL, Node.js, Selenium, NextJS, Git, MongoDB, Cassandra, DynamoDB, PySpark, CockroachDB, Stripe, Tensorflow, PyTorch, Keras, pandas, numpy

Awards/Organizations

Awards/Competitions: Winner of **Stanford**'s health{hacks} 2021 hackathon out of **178** participants. Presented a stochastic agent-based machine learning pandemic simulation tool built over 24 hours to a panel of **9** Ivy League judges.
Organizations: Data at UCI, Hack at UCI, ACM, Music Education for Undergraduates, Autonomous Roomba Team