Andrew Ho

github.com/anmho
andrewho.io

Education

University of California, Irvine Expected Jun. 2025
Bachelors in Computer Science *GPA 3.7*
Courses: Efficient ML Computing, Data Structures,Algorithms, Search Engines, Distributed Systems, Operating Systems, Databases, Parallel Computing

Skills

Languages: Go, Python, TypeScript, Java, SQL, C, C++
Tools: Kubernetes, gRPC, Docker, ArgoCD, GraphQL, Git, PySpark, PyTorch, pandas, numpy
Cloud Services/Databases: AWS, GCP, Kubernetes, Stripe, DynamoDB, Kafka, Cassandra, PostgreSQL, MySQL

Experience

Amazon Web Services May. 2025 - Present
Software Development Engineer Intern *New York, NY*
- Amazon FSx backup and recovery team.
- Designed and implemented an orphanator system to locate and delete orphanted snapshot shards in S3 using Java, S3, EBS, and Simple Workflow Service.

Tesla Sep. 2024 - Jan. 2025
Software Engineer Intern *Palo Alto, CA*
- Developed aerodynamics tools with Go, React, Kafka, and Spark to streamline the vehicle engineering lifecycle.
- Integrated StarCCM+ CFD simulation data streams with Kafka and Spark streaming to provide real-time updates on simulation jobs, enabling faster decision-making and accelerating the engineering design loop.

Snap Inc. Jun. 2024 - Sep. 2024
Software Engineer Intern - Messaging *Los Angeles, CA*
- Developed new features for the Snapchat messaging core service using *Go*, *gRPC*, *DynamoDB* and *AWS*
- Built chat wallpaper feed bump and notification feature, resulting in a 1.2% increase in Snapchat+ subscriptions.
- Collaborated with Meta to create rich URL previews for *Instagram* chat links using oEmbed Graph API.

Snap Inc. Jun. 2023 – Oct. 2023
Software Engineer Intern - Monetization *Los Angeles, CA*
- Designed and implemented multi-dimensional range partitioning for *Apache Druid* analytics database cluster.
- Created *Apache Beam & Spark (PySpark)* pipelines to support range partitioning, speeding up queries by 35%.
- Deployed *Apache Kafka* cluster using *Kubernetes* to process *80TB/day* analytics metrics stream from GCS

ML Hardware Acceleration Researcher Apr. 2024 – Jun. 2024
Donald Bren School of Information and Computer Science *Irvine, CA*
- Researched low-latency ML model optimization strategies for hardware acceleration under Prof. Thomas Yeh, focusing on performance-per-watt tradeoffs.

Operating Systems Course Assistant Apr. 2024 – Jun. 2024
Donald Bren School of Information and Computer Science *Irvine, CA*
- Led weekly office hours and supported labs on concurrency, memory, and networks in C-based OS coursework.

NASA May. 2024 – Jul. 2024
Researcher *Los Angeles, CA*
- Developed high-performance systems in C++, CUDA, and PyTorch to support rover autonomy for NASA's Lucy mission.

Projects

Push Notification Scheduler | *Go, AWS Lambda, DynamoDB, AWS Event Scheduler, AWS CDK, Expo*
- Built a serverless multi-tenant microservice for sending push notifications to app users and scheduling one-time delayed push notification execution for React-Native mobile apps.

Distributed Key-Value Store | *Go, gRPC, Docker, Kubernetes*
- Developed multithreaded distributed key-value store cluster in *Go*, using *B trees*, *LSM trees*, and *bloom filters*
- Implemented hot-cold system using LRU eviction and compaction using Raft replication.