

Pin-Chun (Adrian) Hsu

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Work Experience

xAI

San Francisco, CA

MEMBER OF TECHNICAL STAFF & TECH LEAD MANAGER

Jun. 2025 - Dec. 2025

- Algorithm Team (Organic & Ads) — Shopping Ads Lead. Managed a team of 4 to build Shopping Ads personalized algorithm from 0 to 1; drove multi-million dollar daily revenue growth during Prime Day and Black Friday.
- Bootstrapped multiple Grok classification and ranking pipelines: Commerce Intent Detector that extracts purchase signals from organic engagements to drive Ads performance; Ads Reviewer that intercepts inappropriate creatives; Reply Re-ranker that sections low-quality content including crypto-spam, self-promotion, NSFW, and AI-generated content.
- Shipped a Semantic ID retrieval system for Shopping Ads using RQ-VAE to encode 30-day user history, overcoming cold-start constraints via content-based signals to drive enhanced personalization.
- Built a Generative AI augmented retrieval source to surface contextually relevant products with synthetic search queries and VectorDB.
- Partnered with Human Agent team to scale up & improve recall of the evaluation system for LLM pipelines.

STAFF SOFTWARE ENGINEER & TECH LEAD MANAGER

Sep. 2024 - Jul. 2025

- Applied AI Team — Search & Reply Lead. Managed a team of 3, driving >50% increase in engagement (Fav, Reply), >3% search DAU and UAM YoY.
- Built Two-Tower Search Embedding Retrieval (Training, Indexing, Serving) based on xAI semantic embeddings and vector DB.
- Shipped the on-prem ML ranker for Tweet Search and User Search from 0 to 1. Built Kafka pipelines for client event collection, feature logging, and MapReduce-based training data generation.
- Modernized Reply serving stack by deprecating legacy infra and migrating to the xAI ecosystem, reducing technical debt.

SOFTWARE ENGINEER

Jan. 2021 - Sep. 2024

- Timeline Team. Despite >85% workforce reduction following Twitter acquisition, I served as a primary owner of the Recommendation Org, maintaining critical infra stability for DAU and UAM.
- Took sole ownership of Earlybird (Lucene) search index, ElasticSearch indexes following the elimination of the Search team.
- Sprinted on multiple Elon direct requests: Pinned Tweet Broadcast feature on Home Timeline (via FanoutService); L1 ranker for Home Timeline by knowledge distillation to achieve end-to-end ML; Limit NSFW search results for non-NSFW queries.
- Migrated to a new In-Network candidate source for Home Timeline built on Lucene Index that saved over 100K CPU cores per DC.
- Shipped CrMixer, the centralized Out-of-Network serving infra handling millions of tweets/sec across Home Timeline, Explore, and Notifications.

Twitter

Los Angeles, CA

SOFTWARE ENGINEER INTERN

Jun. 2020 - Sep. 2020

- Revenue Science Org, Ads Data Engineering Team
- Built GCP data warehouse solutions and data pipelines to make Ads data better accessible and reliable.

Alibaba Cloud

Hangzhou, China

SOFTWARE ENGINEER INTERN

Jul. 2018 - Oct. 2018

- Data Warehouse Team
- Worked on the data warehouse backend, Dataworks, which supports the alibaba group including Taobao, Alipay, and more.

Education

University of California, Los Angeles (UCLA)

Los Angeles, CA

M.S. IN COMPUTER SCIENCE

Sep. 2019 - Dec. 2020

- Overall GPA: 3.91/4.0. Specialized in Networking System & Distributed Computing
- Selected Coursework: Database Systems, Computer System Architecture, Big Data Systems, Distributed Systems (MIT 6.824, auditing)

National Taiwan University (NTU)

Taipei, Taiwan

B.S. IN ELECTRICAL ENGINEERING

Sep. 2014 - Jan. 2019

- Overall GPA: 3.77/4.3, CS-Related GPA: 4.08/4.3 (3.92/4.0)
- President of NTUEE Student Association

Skills

AI/ML	Large-Scale Distributed Systems, Applied AI (SFT, Eval Framework), Recommendation Algorithms, Personalization, Ads Serving
Retrieval	Two-Tower Model (Training, Indexing, Serving), Semantic Id Retrieval, Embedding Search, Elasticsearch, Apache Lucene, RAG
Data Pipeline	Kafka, Spark, Polars, MapReduce, Hadoop, Flink
Programming	Python, Scala, Java, PyTorch, Rust, React, SQL, Protobuf, Thrift, gRPC
Others	Docker, Kubernetes, Qdrant, Nginx, Cargo, GCP, ONNX, GraphQL, uv