

Ethan Kam

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WORK EXPERIENCE

Member of Technical Staff II

August 2025 - Present

OpenAI | San Francisco, CA

- Architected and deployed the company's first Ads Integrity infrastructure. Utilized Kafka, Flink, and MLFlow to develop real-time detection infrastructure and models that identify and block scripted click and impression fraud.
- Engineered an autonomous investigation agent that streamlined complex data analysis. Researched persistent memory architectures to enable iterative improvement of the agent over time.
- Developed a novel, long-running LLM algorithm to automate the evolution of Integrity heuristics, building the infrastructure to process multi-gigabyte datasets and realizing \$10M+ in annual compute savings.

Undergraduate Researcher

May 2024 - May 2025

University of Washington | Seattle, WA

- Led research on fine-tuning scaling laws, building an end-to-end Hugging Face pipeline to fine-tune and evaluate 100+ LMs across 8 datasets, model families, and PEFT methods including LoRA/QLoRA.
- Proposed Monotonic NMF, a novel matrix-factorization method that models fine-tuning loss curves as learned monotonic basis functions, revealing that only 3 basis functions can reconstruct diverse loss trajectories with minimal error.
- Improved final-loss forecasting over rectified power-law baselines, requiring 40% fewer training examples overall and 65% less data in out-of-distribution settings to reach accurate predictions.

Quantitative Trading Intern

June 2024 - August 2024

SIG (Susquehanna International Group) | Bala Cynwyd, PA

- Constructed and backtested an implied correlation model during company earnings, analyzing how they affect index volatility.
- Utilized our volatility pricing model to develop infrastructure to automatically notify traders of missing earnings in their event set.

Software Engineer Intern

January 2024 - March 2024

Snowflake | Bellevue, WA

- Worked on key features to support Storage Lifecycle Policies using Java and SQL, allowing customers the capability to automatically archive or expire terabytes of data based on custom requirements.
- Designed end to end behavior of Policy Execution History, including database persistence, slices, metadata export, and views.
- Implemented GET_DDL capability for Storage Integrations so key customers could backup and replicate Storage Integrations.

Software Engineer Intern

June 2023 - September 2023

Palantir | New York City, NY

- Developed custom loading experiences for the Palantir Global Launcher based on a user's authorization group in C++ and Java by implementing an image binary asset and client side caching in the Window OS to display a unique experience to end users.
- Introduced programmatic Docker container health checks, Gradle and Docker compose overrides, and container Remote Debugging capabilities to a Python CLI to manage local testing of backend services.

PROJECTS

Market Analyst - Madden Mobile

- Developed a market analyst for the popular video game Madden Mobile, employing live online transaction and pricing data. Engineered a multithreaded URL crawler in C++ to query and identify players undergoing significant volatility.
- Leveraged the trading system to build a top-tier team without paid spending, enabling me to compete as a top-32 ranked player globally against opponents spending thousands of dollars per month.

EDUCATION

University of Washington | Bachelor's of Science in Computer Science, Minor in Mathematics

September 2021 - June 2025

- GPA: 3.84
- Selected Coursework: Deep Learning, Operating Systems, Systems for Machine Learning, Data Structures and Parallelism, Toolkit for Modern Algorithms, Probabilistic Graphical Models, Advanced Linear Algebra.

SKILLS & ACHIEVEMENTS

Programming Languages: Python, Java, C++, Golang, SQL, Typescript.

Tools and Technologies: Amazon Web Services, PyTorch, Kafka, Flink, Airflow, Spark, Kubernetes, Pandas, Docker.