

Alexander Liu

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Skills

Languages: Python, SQL

Frameworks & Libraries: LangChain/Graph, MLflow, pandas, Flask

Platform & Ops: Databricks, Airflow, dbt, Snowflake, Git, AWS Bedrock/EC2, Azure OpenAI

Experience

Jr. Machine Learning Scientist (promotion to **AI Solutions Engineer** effective Oct 2025) Apr 2024 – Present
Penguin Random House San Francisco, CA (Remote)

- Cut boilerplate code for custom agents by 80% by building an internal LangGraph + MLflow library with custom Claude Code commands to enable usage while teaching users about agents and evaluations
- Unlocked a \$21M incremental revenue opportunity in lifting Amazon PDP conversion rate 1.5% by building a GenAI A+ content generator and review interface that outputs 20k+ on-brand quote cards and banners daily
- Trained 17 developers on Claude Code through working sessions, office hours, and knowledge shares while maintaining repo of documentation and custom commands to automate common workflows
- Engineered a data-analysis agent with 90%+ eval accuracy by self-engineering a context layer from bootstrapped table docs and usage patterns which enabled self-service analytics for non-technical users
- Reduced token costs 86x in an LLM-powered metadata-enrichment pipeline for 50k+ authors by replacing OpenAI API web-search tool usage with a custom search MCP server
- Improved annual demand forecast error by up to 39% on 40k+ titles weekly by fine-tuning pretrained transformer-based time series models (Chronos) that are validated via historical backtests
- Led production deployment of a new-title pricing pipeline for over 2,400 books per year by orchestrating Databricks training and inference jobs using Airflow with automated data-drift detection and alerting

Project Management Analyst Oct 2021 – Apr 2024
Penguin Random House San Francisco, CA (Remote)

- Managed a 40-member cross-functional GenAI program to identify use cases and deliver execution and risk-mitigation strategies for an automation-focused project portfolio
- Built a tool that analyzed search-keyword revenue potential from comp-title sales, revenue, entrenchment, and rank percentiles to streamline book-opportunity assessments

Professional Development

Maven – AI Evaluations for Developers and Product Managers	Jun 2025 - Jul 2025
Hugging Face - Agents Course	Feb 2025
fast.ai - Practical Deep Learning for Coders	Mar 2024 - Apr 2024
Coursera - Andrew Ng's Deep Learning Specialization	Feb 2024 - Apr 2024
Hugging Face - Large Language Models Course	Mar 2024

Education

U.C. Berkeley – B.A. in Computer Science Aug 2021