

Frederick Robinson

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Employment

- 2022-present **Staff Machine Learning Engineer**, *Stripe, Inc.*, Supportability Intelligence
- Tech Lead on a team of 8 backend and machine learning engineers.
 - Improved Terms of Service violation enforcement by more than 20% with Large Language Models.
 - Created centralized service to centralize information about merchant business models.
 - Developed transformers-based merchant website text classification model.
- 2017-2022 **Senior Applied Scientist**, *Amazon AWS - Interactive Video Service*, Twitch
- Mentored other applied scientists, leading to one being promoted.
 - Designed, and productionized realtime machine learning model to optimize data center selection for video playback, reducing global video buffering rates by 41%.
 - Launched new machine learning service for predicting optimal video player settings.
 - Created streaming fraud detection machine learning system, improving fraud detection by more than 75% for problematic channels.
 - Implemented first mathematical-model based method for transcode server configuration, improving server hardware utilization by > 5%.
 - Wrote production golang code for backend service serving > 50k RPS.
- 2014-2017 **Software Engineer**, *Google, Inc. - Display Ads*, Remarketing Quality
- Developed end-to-end real-time bidding system calibrated by offline auction simulation.
 - Built models to optimized advertiser ROI by learning advertiser-specific bidding strategies.
 - Wrote and maintained production mapreduce pipeline and monitoring.
 - Enabled additional traffic expansion worth tens of millions in incremental annual revenue.
 - Trained models to improve CTR on multi-product ads.
- 2012-2014 **Teaching Assistant**, *University of California, Los Angeles*

Skills

Skills Machine Learning, Data Science, Data Engineering
Languages Golang, Python

Education

- 2014 **Master of Arts in Mathematics**, *University of California Los Angeles*
2012 **Bachelor of Arts in Mathematics with Honors**, *Northwestern University*