Frederick Robinson

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Employment

2022-present **Staff Machine Learning Engineer**, *Stripe, Inc.*, Supportability Intelligence.
- Tech Lead for a team of backend and machine learning engineers.
- Improved Terms of Service violation enforcement by more than 20% with Large Language Models.
- Created new service to centralize information about merchant business models.
- Developed transformers-based merchant website text classfication 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 >1%.
- 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	Python, Golang

Education

2014 **Master of Arts in Mathematics**, *University of California Los Angeles*.

2012 **Bachelor of Arts in Mathematics with Honors**, *Northwestern University*.