

JESSE MOORE

Head of Data Science and Quantitative Trader

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Calgary, Alberta, Canada

EXPERIENCE

Head of Data Science and Quantitative Trader 01/2020 - Present

Avatar Securities, LLC Chicago (Hybrid)

- Avatar Securities is a multi-strategy proprietary trading firm based in Manhattan with offices in Austin and Chicago
- Responsible for all trading data required for back testing and executing trading strategies, and all the infrastructure for quantitative trading.
 - Directly manage a team of 8 people to help build and execute a large set of fault-tolerant, fast, and reliable trading infrastructure projects.
 - Run day-to-day quantitative trading - managing a set of trading strategies for the firm and for other traders. Working with traders and PMs to help optimize and run their strategies, a/b testing, and managing the code and execution.
 - Built and manage a quantitative trading engine and a set of strategies with a combined Sharpe ratio of 3.3.
 - Operate 10 different strategies on a daily basis and profitably handle back testing, live-trading, locates, routing, entry/exit optimization.
 - Rebuilt the entire ETL pipeline for the quantitative database that housed all market data across supported assets - reducing downtime by 98% (once per week to once per year).
 - Constructed a multi-staged natural language to quantitative formula translation engine that generates mathematical formulas from written descriptions with a success rate of 95%.

Principal Consultant - Deep Learning 01/2021 - 01/2020
VoiceOps USA Remote

- VoiceOps is a coaching enablement platform that helps users turn data into measurable outcomes for teams on the phone.
- Responsible for architecting and constructing AWS-based infrastructure for large-scale machine learning. Developed scripts to train, fine-tune, and fully integrate transformers (e.g. BERT, ALBERT, Roberta) into novel new architectures that combined both text and statistical data.
 - Constructed and deployed an ASR post-processing model that reduced transcription costs by 80% - significantly boosting margins and saving \$2 million/year in transcription costs.
 - Automated scoring of transcriptions (ROC-AUC = 0.90) to reduce the required headcount of administrators required. Reduced number of administrators by 50%.
 - Developed a model to find optimal price to pay for a transcription. Reducing costs by 25% through reduced operating costs.
 - Trained a combined transformer and LSTM architecture to classify events in a phone call - increasing platform engagement.

Technical Founder 01/2019 - 05/2020
Mobilads New York

- Mobilads is Americas leading ride-share car-wrap advertisers and connects brands to consumers through smart out-of-home advertising.
- Helped drive the company to \$5 million in annualized revenue through automation.
 - Constructed and optimized a geospatial system that maps physical ad impressions based on vehicle GPS data and mobile GPS data. The Mobilads geospatial system was scalable to thousands of vehicles and billions of GPS points. This system was attributed to the 100% customer retention rate with major brands like Amazon, American Express and Mars Wrigley.
 - Architected and led the development of the Mobilads app for autonomously managing tens of thousands of drivers, boosting the companies gross margins from 15% to 21% and helping the business scale from running 1 concurrent ad campaign to 10.

SKILLS

Leaderships and Management
Project Management ·
Organization and Team Building ·
Talent Development ·
Experienced Executive

Programming
Python · Docker · AWS · CI/CD ·
Operations · Devops ·
Automated Testing ·
High Performance Python

Data Science
Machine Learning ·
Data Engineering · ML Operations ·
Pandas · Numpy · Numba

Deep Learning
Deep Learning Research ·
Applied Deep Learning · PyTorch ·
Large Language Models ·
Transformers

Trading
US Equities · Systematic Trading ·
Back testing · Quantitative Trading ·
Automated Trading Execution ·
Slippage/Trading Cost Optimization

CERTIFICATION

Series 57 - Securities Trader Representative
Finra November 2021

Securities Industry Essentials
Finra October 2021

EXPERIENCE

CEO and Technical Founder 06/2017 - 01/2019
UK / Bulgaria

Sigmai

Sigmai created an automated news classification engine utilized by hedge funds for trading decisions and by companies to monitor their brands across the globe

- Built and managed a team of 15 engineers, data scientists and sales and marketing professionals until our acquisition.
- Sigmai was acquired by Commetric in 2018 - a company that continues to provide services to top global brands such as Novartis.
- At the time of our acquisition, Sigmai's principal deep learning model - Sierra - had a 92% accuracy rate over more than 400 classifications and was processing hundreds of thousands of news articles a day.

Data Scientist 01/2016 - 06/2017
Hamburg, Germany

Zalando

Zalando SE is a publicly traded German online retailer.

- Built analytical tools and ETL pipelines in Spark on AWS and predictive tools for targeting audiences for specific ad campaigns that increase return on ad spend by 21%.
- Developed a system to detect and reduce lost revenue due to poor ad placement by an average of \$US 0.5 million per month.
- Designed a system for determining the causal impact of multiple concurrent ad campaigns (Offsite, Onsite, Banner Ads, Full-Page Ads, etc) using regression and Bayesian time-series models.

Engineering Project Manager 08/2012 - 11/2015
Brisbane, Australia

Senex Energy

Senex is an established and growing Australian producer of oil and natural gas.

- Given the top performance ranking every year I was at the company due to repeated on-time and on-budget project delivery.
- Managed multi-disciplinary engineering projects totaling more than \$100 million under strict budget and schedule constraints for upstream oil and gas exploration.
- Delivered projects accounting for 30% of annual company production in 2011.
- Reduced completion times by 40% for repeatable projects through automation and modularization.

Project Manager (Co-op) 04/2010 - 09/2011
Edmonton, Canada

ExxonMobil

ExxonMobil is one of the world's largest publicly traded oil and gas companies.

- Led capital expense projects totalling \$5 million for the Integrated Event Team that planned refinery shutdowns.
- The original 4-month co-op contract was extended to 18 months due to high performance and company needs.
- Completed a high-risk project involving the replacement of catalyst beds in the hydro-treating reactor of the refinery on time and on budget.

PERSONAL PROJECTS

Bluescribe Automated Legal Translation

Bluescribe was built to automate the translation and localization of legal documents between Canadian English and French.

- Reached \$7,500 in revenue through a translation contract with one of the largest legal firms in Canada.

Fifty Point Five - NHL Systematic Betting

Designed, built and ran an ensemble of machine learning models project that were used to predict accurate betting lines for NHL hockey games.

- The system was able to predict the winner of NHL games with 66% accuracy versus a baseline accuracy of 54% and was used for live trading to generate returns of 250% in 2020.

EDUCATION

B.Sc. in Mechanical Engineering

University of Alberta
2007 - 2012