

EXPERIENCE

Extend

San Francisco, CA, U.S.A.

Dec 2021 – Present

Senior Data Scientist, Finance and Risk

- o Lead finance and revenue analytics data strategy, contributing to well-informed architecture and design decisions.
- o Regularly presented to executives on performance, forecasts, and strategy insights/metrics for quarterly business review.
- o Reduce churn of merchants worth >\$25M using machine learning on sales and alternative data sources to predict performance.
- o Develop and deployed real-time monitoring to visualize and predict risk patterns for stakeholders to adjust reserve and pricing.
- o Improve financial forecasting model accuracy by 30% by implementing a time series forecast model in Python.
- o Construct and maintain our custom Python package, `extend_analytics`, to enhance collaboration, streamline deployment, improve reproducibility, and facilitate knowledge sharing within the team.
- o Propose and build a merchant conversion funnel to visualize and predict onboarding timelines to allocate resources efficiently.
- o Serve as team analytics engineer using AWS, Spark, ETL tools (DBT, Snowflake, etc.) to build pipelines and reverse ETL.

Charles River Associates

Boston, MA, U.S.A.

Sept 2019 – Dec 2021

Associate

- o Led cross-functional teams as an analytics and economics consultant providing consulting on M&A to Fortune 500 companies operating in ad tech, media, healthcare, and retail, using transaction, financial, and KPIs data.
- o Presented memos, decks, and visualizations of findings to technical/non-technical stakeholders such as C-suite executives.
- o Reduced client costs by \$150K through automating geospatial mapping analyses of client traffic data.
- o Employed hypothesis testing, synthetic control, MMM, and panel data regressions to provide competitive insights.
- o Forecasted growth of a two-sided social media platform using discrete choice models, time series, and machine learning.
- o Removed bottlenecks by speeding up big data analysis using cloud computing, multi-processing, vectorization, and encoding.
- o Built an introductory programming module to train new hires in object-oriented programming and economic analysis.

University of Toronto

Toronto, ON, Canada

May 2018 – Aug 2019

Research Assistant, Department of Economics

- o Led RA's in analyzing Michigan timber auction data for anomalies using regression discontinuity and isolation forests.
- o Applied Natural Language Processing such as topic modeling on texts to map technology transfer across history.

Teaching Assistant, IFP040HIS- Applied Concepts in Economics, University of Toronto

Dec 2017 – Apr 2019

EDUCATION

University of Toronto

Toronto, ON, Canada

Hons B.A. Economics, Public Policy, and Statistics

Jun 2019

Arthur Hosios Scholarship in Economics: Awarded annually for the best original research thesis in empirical economics.

Rational Capital Fund: Student-led investment firm with >\$300,000 AUM. Invested, and conducted due diligence as analyst.

Financial Risk Management (FRM) Candidate

Aug 2023

PROJECTS

Machine Learning applications in Sports betting

- o Designed ML project using publicly available data to predict football match outcomes to explore optimal betting strategy.
- o Employed M-Logit, Random forests, XGBoost etc., and sampling methods to assess accuracy.

Leveraging NLP on alternate data for trading

- o Predict bearish/bullish trends in stock prices by tracking sentiments for companies on the S&P500 using a deep learning Fin-BERT transformer leveraging scraped Google News and Reddit *wallstreetbets* data.

Frictions in Dating Markets

- o Collect novel dating app data to estimate drivers of dating activities and use econometrics to study frictions in dating markets.

TECHNOLOGIES & SKILLS

Programming: Python, Ray, SQL, Pyspark, Golang, Jinja, R, STATA, MATLAB

Technologies: DBT-python, AWS (Glue, Sagemaker, etc.), Snowflake, Feast, Git, Airflow, Docker, Tableau, Mode, Excel

Other: Salesforce, JIRA, Similarweb, Datadog, ArcGIS