Tallal Usman

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EXPERIENCE

Extend *San Francisco, CA, U.S.A.*
Senior Data Scientist **Dec 2021 – Present**

- Lead finance and revenue analytics data strategy, contributing to well-informed architecture and design decisions.
- Reduce churn of merchants worth >$25 million using ML on sales and alternative data sources to monitor performance.
- Develop real-time monitoring to visualize and predict risk patterns for stakeholders to adjust reserve pricing and expansion.
- Improve financial forecasting model accuracy by 30% by implementing a time series forecast model in Python.
- Propose and build a merchant conversion funnel to visualize and predict onboarding timelines to allocate resources efficiently.
- Concurrently serve as team analytics engineers using AWS services, Spark, and ETL tools including DBT and Snowflake to optimize and maintain scalable data warehousing, improving data processing time by 25%.
- Manage cross-functional collaboration, documentation, and research/present on state-of-the-art data methods.

Charles River Associates *Boston, MA, U.S.A.*
Associate **Sept 2019 – Dec 2021**

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

University of Toronto *Toronto, ON, Canada*
Research Assistant, Department of Economics **May 2018 – Aug 2019**

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

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.

PROJECTS

Machine Learning applications in Sports betting

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

Leveraging NLP on alternate data for trading

- 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 *wallstreebets* data.

Frictions in Dating Markets

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

TECHNOLOGIES & SKILLS

Programming languages: Python, Ray, SQL, Spark, Golang Bash, jinja, R, STATA, MATLAB, Bash

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

Skills: Machine Learning, Data Analytics Forecasting, Raspberry Pi, Big Data, NLP, Visualization, Cloud Computing