Barinder Thind

🌐 http://barinderthind.com   ✉ *barinder.thi@gmail.com*

in https://www.linkedin.com/in/b-thind/   ✆ (778) 898 3014

Education

Simon Fraser University	Burnaby, BC
MSc. Statistics, GPA: 94%	*Sep 2018 ‖ Apr 2020*
Simon Fraser University	Burnaby, BC
BSc. Honours Statistics/Economics, UGPA: 89%	*Sep 2012 ‖ Apr 2018*

Work Experiences

Data Scientist   `Later`   *Vancouver. BC*   *July 2020 ‖ Present*

- Development of full data stack (date warehousing, reporting database, ETL, development, productionizing)
- Company wide financial and customer forecasting (ARIMA, Prophet)
- Development of private Python libraries and docker containers for model deployment
- RShiny and Flask applications for internal machine learning servicing
- Applications of custom Reforge methods to identify and isolate user behavior
- Primary source for validation on A/B testing and experimental design
- Modelling: NLP (word2vec, LDA, cosine similarity, etc.), Supervised (regression, tree methods, neural networks, etc.), Unsupervised (PCA, clustering methods, etc.), Monte Carlo Simulations
- Software: AWS (SageMaker, S3, Lambda, etc.), Amplitude, Big Query, Google Compute Engine, Fivetran, Segment, RShiny, Flask, Google Analytics, Notion, Zendesk, Asana

Quantitative Engineer   `oQuant Inc.`   *Vancouver, BC*   *May 2019 ‖ Sep 2019*

- Developed models to be optimized using a proprietary AI programming language
- Discovered unique approach for earthquake prediction using support vector machines resulting in a mean squared prediction error improvement of over 12% from previous work

TA & Stat. Consultant   `Simon Fraser University`   *Burnaby, BC*   *Jan 2018 ‖ Aug 2020*

- Conduct statistical analysis to aid the publication needs of authors from various backgrounds
- Marked and invigilated exams for introductory statistics courses (regression, ANOVA, etc.) while also providing help for students in various programming languages
- Developed communication skills to relay complex information in an understandable manner

Research Assistant   `Simon Fraser University`   *Burnaby, BC*   *May 2018 ‖ Aug 2018*

- Created a data scraper to help extract information from the Gene Expression Omnibus - a hub for data on genetics
- Worked on a number of data sets to expand my grasp of various modern statistical analysis techniques (PCA, tree methods, FDA)

Methodologist   `Statistics Canada`   *Ottawa, ON*   *Jan 2017 ‖ Apr 2017*

- Developed a scoring system that would help identify duplicate observations (brought upon by faulty submissions) within the Business Register (BR) through the use of Zipf's law
- Resulted in the identification of over 100,000 duplicate observations

Programming

Statistical Software:	RStudio ‖ SAS ‖ Excel ‖ AWS/GCE ‖ Tableau
Programming:	R ‖ Python ‖ MATLAB ‖ LaTeX ‖ SQL

Projects

Deep Learning with Functional Inputs *View Project*
Generalization of neural network network input space - Paper Submitted

FuncNN: An R Package to Fit Functional Neural Networks *View Project*
An R package built on top of the Tensorflow architecture - Available on CRAN

Gaussian Processes *View Project*
A detailing from the Bayesian perspective

Neural Ordinary Differential Equations *View Project*
An introduction to a key insight found by extending *Residual Neural Networks*

The Relationship Between Heart Disease and Osteoarthritis *View Project*
Implementation of an ensemble of the LASSO and propensity scores

Least Angle Regression *View Project*
A theoretical explanation of the LARS algorithm

Signal Separation of Energy Sectors *View Project*
An autoregressive approach applied to data signals found through ICA and NMF

Identifying Duplicates within the Business Register *View Project*
Implementation of Zipf's law in the context of record linkage

Awards

Top Statistical Research Award May 2020	*Statistical Society of Canada*
Graduate Researchship May 2020 ‖ $6500	*Department of Statistics - SFU*
Graduate Fellowship Jan 2020 ‖ $6500	*Department of Statistics - SFU*
Big Data Graduate Scholarship Sep 2019 ‖ $6500	*Department of Computer Science - SFU*
Case Study Competition - 2nd Place May 2019	*Statistical Society of Canada*
EFC Scholarship Sept 2018 ‖ $1000	*Electro Federation Canada*
KEY Big Data USRA May 2018 ‖ $6000	*Department of Computer Science - SFU*
Police Data Challenge - Honorable Mention Nov 2017	*American Statistical Association*
NSERC USRA May 2017 ‖ $6000	*Department of Statistics - SFU*
President/Dean's Honour List Apr 2016 - Apr 2020	*Simon Fraser University*