

Barinder Thind

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🐙 <https://github.com/b-thi>

Primary Experiences

Data Scientist	Later	Vancouver, BC	Jul 2021 Present
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- Key contributor during due diligence process for **\$200M acquisition**
- **Hired** entire data team including manager, analysts, and interns
- Helped develop **full data stack** from data warehousing to model deployment
- Deployed models via **Docker** containers and private Python libraries
- Developed the entire Influencer Marketplace model (**doc2vec** + k-means clustering)
- Hashtag Suggestions model with **10k+** **daily endpoint invocations** (word2vec + **proprietary**)
- Caption Based Suggestions model in production (**YAKE** + **word2vec**)
- Topic Modelling model for user segmentation (a **modified Latent Dirichlet Allocation**)
- Experience working with "Big" Data (**250m+** rows)
- Software: AWS (SageMaker, S3, Lambda), BigQuery, Google Compute Engine, Spark
- Languages: Python, R, SQL

Data Analyst	Later	Vancouver, BC	Jul 2020 Jun 2021
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- Applications of "Reforge" methods to identify key user behaviors (setup, aha, habit moments)
- Company wide financial and customer **forecasting** (ARIMA, **Prophet**)
- Primary source for validation on **A/B testing** and experimental design
- **RShiny** and **Flask** applications for internal machine learning servicing
- General analysis/documentation using common **supervised** and **unsupervised** methods
- Software: BigQuery, Git, Google Data Studio/Analytics, Asana, Amplitude
- Languages: Python, R, SQL

Functional Neural Networks	SFU	Academic Paper	May 2019 May 2020
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- A **novel** contribution in the world of machine learning
- Unification of modern neural network architectures with **functional data analysis** (FDA)
- An **R Package** (FuncNN) developed on top of the TensorFlow architecture (**8000+** downloads)
- **View Paper** – submitted to Journal of Computational & Graphical Statistics (H-Index: 94)
- **View R Package** – Publicly available through CRAN

Education

Simon Fraser University (SFU) 🎓

MSc. Statistics, GPA: 94%

Burnaby, BC

Apr 2020

Simon Fraser University (SFU) 🎓

BSc. Honours Statistics/Economics, UGPA: 89%

Burnaby, BC

Apr 2018

Amazon Web Services (AWS) 📖

Machine Learning Specialty

Vancouver, BC

April 2022

Skills

Programming: R || PYTHON || SAS || SQL || MATLAB || L^AT_EX
Cloud/Dev Tools: AWS || GOOGLE CLOUD || GIT || JUPYTER || DOCKER
BI/Reporting: GOOGLE DATA STUDIO || TABLEAU || AMPLITUDE || MODE || SHINY

Projects

Deep Learning with Functional Inputs [View Project](#)
Generalization of neural network network input space - Paper Submitted

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

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 Sep 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*

Additional Work Experiences Details provided on LinkedIn

Quantitative Engineer May 2019 || Aug 2019 *oQuant*

RA/TA/Consultant Jan 2018 || Apr 2020 *SFU*

Methodologist Jan 2017 || Apr 2017 *Statistics Canada*