Andy Yang

+1-647-461-6466 • syyyang003@gmail.com • [Personal Website](#) • [LinkedIn](#) • [GitHub](#)

SUMMARY

- 3+ years of Experience in Data Analytics at Companies such as TD and Toyota, with projects in implementing innovative machine learning validation solutions, ETL pipelines, and Python and R full stack applications
- Obtained a master's degree in data science from UBC, completed machine learning projects involving generalized linear modelling, gradient boosting trees, neural network optimization, NLP, and model deployment in AWS
- Strong coding skills in Python (Spark), R, SQL, with proficiency in data manipulation and working with big data

WORK EXPERIENCE

TD Bank Group *Toronto, ON*
Senior Quantitative Analyst (Model Validation)   Apr 2023 - Present
- Engineered an innovative Python application that automated the consolidation of model validation KPIs into Tableau dashboards using a streamlined SQL data pipeline, expediting the quarterly review process by over 2 weeks
- Elevated data science workflows by leading the development of Python and PySpark model validation code to supersede existing SAS repositories and integrate workflows with the Hadoop cloud environment
- Collaborated with model developers to script and deploy python model monitoring code in MS Azure cloud environment as a part of regulatory compliance initiatives within TD's MLOps process

Quantitative Analyst (Model Validation)   Sept 2022 – Apr 2023
- Validated a variety of machine learning and AI fraud detection models with SAS and Python, conducting comprehensive performance testing including AUROC, K-S, hyperparameter optimization, and stability analysis
- Enhanced R Shiny dashboards and established version control initiatives including CI/CD standards; improving code clarity and implementing predictive modelling visualizations such as stress/sensitivity threshold graphs

Toyota Motor Manufacturing Inc. *Cambridge, ON*
Information Systems (Co-op)   Jan 2020 – Apr 2020
- Displayed excellent critical thinking ability by optimizing SQL server database schema and restructuring ETL data pipelines, significantly reducing server load and speeding up query response times by up to 300%

PROJECTS

LiDAR Object Detection and Classification for Cities   May 2022 – Jun 2022
Reliance Foundry Co. Ltd. UBC MDS Capstone
- Trained and optimized convolutional neural network using PyTorch to perform 3D object detection within LiDAR point clouds, achieving a maximum mean average precision score of 0.93
- Recognized as one of the top 3 Capstone projects of the UBC MDS 2023 Cohort

Twitter Sentiment Analysis Using Pytorch Deep Learning Models   Feb 2024 – Mar 2024
- Implemented deep learning sentiment analysis models in PyTorch using CNN, LSTM, and RNN architecture to predict tweet sentiments, achieving a maximum test accuracy of 94.1%

EDUCATION

M.S. of Data Science   Sep 2021 – Jul 2022
University of British Columbia, Vancouver, BC ([coursework information](#))

BASc. of Chemical Engineering   Sep 2016 – Apr 2021
University of Waterloo, Waterloo, ON

SKILLS

Coding Languages and Tools: Python, R, C#, Jupyter Lab, PySpark, HTML, CSS
Statistics: Hypothesis Testing, Segmentation Analysis, A/B testing, Probability Distributions, Generalized Linear Modelling
Data Platforms: SQL, NoSQL, PostgreSQL, Hadoop, Tableau, Power BI, AWS, Spark, SAS (certified in 9.4)
Machine Learning: Scikit-Learn, PyTorch, Ensemble Modelling, Neural Networks, Natural Language Processing