# Michael Yang Data Scientist

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**Self-motivated individual with excellent mathematical and statistical ability and strong teamwork skills**

## SKILLS

**Language:**
Python, SQL, Git
**Data Science Toolbox:**
Hadoop, Spark, AWS, TensorFlow, PyTorch, Scikit-Learn, PyCharm, Jupyter, NumPy, Pandas, Matplotlib, Django
**Database:**
PostgreSQL, Cassandra
**Artificial Intelligence:**
Machine Learning, Deep Learning, Unsupervised Learning, Transfer Learning, Natural Language Processing

## PROJECTS

**Cryptocurrency Real-Time Prediction Model** Spring 2019
Conducted time series analysis and developed a deep learning (LSTM) coin return prediction model by integrating historical data with news sentiment analysis and social media status

**Dark Image Super Resolution Deep Learning Model** Fall 2018
Modified and combined two existing state-of-the-art deep neural networks in TensorFlow, and developed a new generative adversarial network (GAN) for dark image super resolution

**Loan Default Rate Prediction Classification Model** Fall 2018
Developed a machine learning binary classification model to predict loan default possibilities and visualized input data for exploratory data analysis to discover patterns and trends

## WORK HISTORY

**Amplify Data Scientist** May 2019 – Present
RBC Capital Markets, Toronto
+ Working closely with traders, salespeople, research analysts and Capital Market IT team, and using Design Thinking and Agile methods to build a data-driven AI-based product
+ Developing a deep learning NLP model to draw intelligent client (institutional investors) insights from CRM system call reports, news, and research reports to discover cross-sell opportunities and facilitate trades
+ Managing team objectives, conducting interviews with end-users, and developing pipelines for data processing and feature engineering

**Quantitative Research Intern** May 2017 – August 2017
China Merchants Securities, Shenzhen
+ Conducted time series analysis on financial sector stocks and developed a pairs trading model in Python with NumPy and Pandas and Matplotlib
+ Developed a multifactor stock selection model, and improved its performance by using Markowitz mean-variance optimization to determine optimal weights
+ Studied and researched day trading strategies on index futures
+ Assisted research analysts to develop a volatility trading strategy

## EDUCATION

**MSc. in Computer Science, Big Data** September 2018 - Present
Simon Fraser University, Burnaby, Canada
+ CGPA: 3.6
+ Expected Graduation: December 2019

**BCom. in Finance, Minor in Mathematics** September 2010 – May 2015
University of British Columbia, Sauder School of Business
+ CGPA: 3.8
+ Trek Excellence Scholarship for Outstanding Academic Performance

## SELF-DIRECTED LEARNING

**Coursera**: Applied Data Science with Python
**Actuarial Science (SOA)**: Exam Probability, Exam Financial Mathematics
**Charted Financial Analyst Institute**: CFA Level 2 Candidate