Kyle Kim

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EDUCATION

Sept 2015 – May 2020

Mechatronics Engineering, BASc — University of Toronto

Faculty of Applied Science and Engineering – cGPA: 3.73 – most recent annual GPA: 4.00

- AI Certificate, Business Minor
- NSERC Scholar, Deans Honors List 2015 – 2019

WORK EXPERIENCE

Sept 2019 – May 2020

Software Engineer (Capstone)

TD Toronto-Dominion Bank

- Built a NLP model capable of comprehending 1000+ customer reviews, utilizing aspect and character based sentiment analysis models with achievement of 90.2% test accuracy
- Implemented a keyword extractor function through modified TF-IDF, to uniquely cluster TD ATMs/branches
- Initiated a POC plan for serverless REST API, utilizing AWS API Gateway, Lambda and S3 services

Apr 2019 – Aug 2019

Software / Data Engineering Intern

CPP Investment Board

- Developed and presented a serverless cloud data pipeline for investment holdings information through AWS, Spark and Jenkins, providing actionable business insights to update current strategy
- Built a Java Spring Boot REST API endpoint for equity data search engine, with distributed search (ElasticSearch) integration, totaling to $400 Billion CAD, targeted towards 2,000 users among 8 international locations
- Implemented a POC Python Flask microservice for contextual keyword search based on the company's profile, through Docker, Word2Vec transfer learning model and NLP methods. Successfully secured project funding

May 2018 – Apr 2019

Software Engineering Intern

Autoliv

- Created / published an ASP.NET MVC based web-service API, SQL data structure, along with backend C# data handler to automate assembly line status updating procedure. Improved production data quality by 45%
- Performed statistical analysis on 14,000+ data entries regarding quality issued products through Python. Successfully identified $20,000 worth of potential scrap modules
- Built / globally deployed a visual UI system of assembly line status map. Improved maintenance response rate by 70%

ACHIEVEMENT

Coursework

Machine Learning – News Article Analysis

- Presentation available on youtube – https://www.youtube.com/watch?v=7oKdg4PlWIE
- Utilized word based LSTM RNN architecture to predict stock trend based on its news headline
- Achieved 76% test accuracy rate in conjunction with fundamental NLP, data augmentation, Word2Vec embedding, and hyperparameter optimization

Side Project

Stock Trend Forecast Bot

- Wrote a bot in Python in conjunction with MATLAB API to predictively model a given stock's price trend
- Used log-normal probability distribution, along with Monte-Carlo simulated risk and polynomial regression
- Ranked 12th at highest, competing among 16,000 investors on Wall St. Survivor trading simulation board

Scholarship

Jeffrey Skoll Leadership Scholarship

- Awarded $10,000 by the generous Skoll Foundation, for demonstrating academic excellence as well as extensive involvement within the business community

SKILLS

Programming	Python, Java, C/C#/C++, VBA, MATLAB, ReactJS, AngularJS, HTML/CSS/JS/TS
Data Analytics	Tableau, Power BI, SQL, Jupyter Notebook, Google Colab, Excel, Origin, R
Machine Learning	TensorFlow, PyTorch, NLP, CNN, RNN, GAN Architectures
Cloud / Data ETL	Apache Spark, Docker, AWS ECS, ECR, Glue, S3, Lambda, StepFunctions, Terraform, Jenkins, Git