Sebastian Bugal

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I am a 4th-year Data Science undergraduate student at Simon Fraser University. I have recently completed a personal project analyzing the effect of news sentiment and other factors on Exxon mobile's stock price and am eager to apply the knowledge I've gained in predictive analytics, data handling, and model building on a more practical level. I'm looking to make a strong start to my future career by making an active contribution to the data science and analytics department of your company.

🧠 SKILLS

Python *(Pandas - Matplotlib - Analysis - AI)* | **Database** *(MySQL - PostgreSQL)*

R *(tidyverse)* | **Statistics** *(Modeling - Clustering - Regression - Exploratory Analysis)*

Tableau | **Git** | **C - C++** | **Excel** | **Java** *(Node.js - JavaScript - React)*

Machine Learning *(Keras - Tensorflow - Scipy - Scikit learn)*

🌐 LANGUAGES

English *(Native)*

German *(Native)*

Mandarin *(Elementary)*

🎓 EDUCATION

Data Science Major - B.Sc, Simon Fraser University
- Senior data science student with course experience consisting of business, statistics, computer science, and database systems.
- Course projects completed that gave a deep insight into the following areas: data collection and web scraping, real estate price estimation using multiple linear regression, and customer analytics.

09/2018 – 12/2021
Vancouver, Canada

High School - IB Diploma, International School of Zug and Luzern
- Completed the rigorous International baccalaureate with a concentration in the sciences and economics.
- Extended Essay(Final Paper) investigated recurrent neural networks and their application in the finance industry.

08/2016 – 07/2018
Zug, Switzerland

💼 PROFESSIONAL EXPERIENCE

Automated Test Developer, QTF
- Developing automated tests with python frameworks, primarily developing automated tests for web applications.
- Main packages used consisted of selenium, pytest, jenkins.

08/2020 – present
Burnaby, Canada

Web Developer, Occam Data Analytics
- Providing both the front and back end development using frameworks including EJS, Nodejs and Reactjs.
- Developing full coverage sites with a variety of custom requests.

08/2020 – present
Burnaby, Canada

Sales Assosiate, Fido Mobile
Providing high quality sales service primarily selling cell phone plans and mobile phones.

07/2019 – 11/2019
Burnaby, Canada

🗂 PROJECTS

Corona Virus Hackathon
- A hackathon consisting of several teams investigating the effect COVID-19 is having on the world and the impact it is having on specific countries. Our group built a shiny app to visualize the relationships between individual cases and their initial infection points.
- This was achieved using R to create the visualizations and build the shiny app. The data was scraped from singapores government website for COVID-19.

Geosocial Media Startup
- Working through ideation, business modeling, design sprints, organizing seed investment, and the development cycle of a social media application.
- Managing a development team and ensuring good communication and collaboration between everyone.

Affect of news sentiment on Exxon Mobil's stock price.
- In this competition our group analyzed Exxon Mobil news sentiment and other factors, and the affects they have on the companies stock price. With this insight our group build a simple clasifier to give predictions on the stock price movement given a variety of input variables.
- This was achieved using python, and data collected from worlddata.ai. The data was cleaned and stored using pandas and the classifier was build using keras with a tensorflow backend.

Computer Generated Art
- This project was an investigation to better understand generative neural networks. Using a generative adversarial network with the Wasserstein loss function, I trained a neural network to generate art, given sunflowers as an input.
- The project was written in python using TensorFlow, Keras, NumPy, and additional beneficial libraries.

Financial Time Series Analysis
- In this project, I attempted to predict the price of an underlying stock (Apple) by training an LSTM on historical market data. With this, I wrote a report on how recurrent neural nets function and got an in-depth understanding of recurrent neural nets and long short-term memory recurrent neural nets.
- Python was used to develop the model and collect/clean the data. The data was taken from yahoo's finance platform.

Translink Bus Data Project
- Building an application in R that scrapes tweets from Translink and compiles which busses are temporarily out of service. This was achieved using NLP practices and regex patterns that corresponded to tweets that announced busses temporarily out of service.

📰 PUBLICATIONS

Finding coronavirus-resistant stock portfolios, Analytics Now 2019-2020 Edition
Using various optimization algorithms to find a variety of COVID-19 resistant stock portfolios with different risk matrices.

🎸 INTERESTS

Chess | Gym | Game Development | Piano