Roshan **Munjal**

COMPUTER SCIENCE · UNIVERSITY OF WATERLOO

r2munjal rmunjal.me roshan2M roshan2M

Skills

Languages Java, Python, JavaScript, Bash, C/C++, Racket, SQL, MATLAB

Tools NodeJS, React, REST, force.com, AWS, Azure, matplotlib, scikit-learn, Git, CircleCI, Jira

Experience

KOOLTRA

Toronto, ON

Associate Software Engineer — *May. 2018 - Sep. 2018*

- Developed features for a web forex platform on force.com and AWS with 1,000+ daily transactions in a dynamic startup.
- Built REST endpoints in Java and Apex to receive foreign exchange quotes and execute trades through Oanda.
- Wrote Python and Bash scripts to automate data deployment to Salesforce developer orgs and run CircleCI tests, working in a team of 5. Increased mean sprint points per team per week by ∼15%.
- Architected automatic trade confirmation emails in Apex and performed mock unit testing using fflib-apex-mocks.

Projects

KAGGLE

Waterloo, ON

Data Science Projects — *July. 2018 - Present*

- Used logistic regression in scikit-learn to predict the survival of passengers on the Titanic with ∼80% accuracy. Used seaborn and matplotlib to plot correlations between variables.
- Built a random forest and neural network pipeline using scikit-learn to classify toxic Wikipedia comments.

FINANCIAL OUTLIER DETECTION

New Haven, CT

Yale Hackathon Project — *Dec. 2017*

- Parsed financial data from the CSV files in the JPMorgan Chase dataset and stored input in DataFrames using Pandas.
- Implemented linear regression and Gaussian distributions in SciPy using key features in the data to identify outliers.
- Built a front-end using HTML5/CSS3. Retrieved CSV files from user using Flask and displayed results using matplotlib.

CHESS GAME & ENGINE

Mississauga, ON

Personal Project — *Aug. 2017 - Dec. 2017*

- Using object-oriented principles in Java and Swing to implement the board and GUI, abstraction for pieces, moves and other features.
- Implemented a chess engine using Minimax. Working on a database of chess openings and Alpha-Beta pruning to find optimal moves.

DESTIN

Toronto, ON

Global AI Hackathon Project (2nd Overall) — *Jul. 2017*

- Developed a chat-bot that responds to queries about different locations around the world in a team of 6.
- Utilized Microsoft Azure's LUIS (language processing) API and integrated components using NodeJS.
- Earned 2nd place at the hackathon and presented the chat-bot project to ∼40 people.

Activities

WATERLOO SAILBOT

Waterloo, ON

Controls Team Member — *Oct. 2017 - Present*

- Tested machine learning frameworks compatible with ROS and the Jetson hardware for the autonomous sailboat.
- Presented benefits and drawbacks of the frameworks to a team of 10.
- Built and tested a classifier to detect an orange buoy using the Inception model in Tensorflow.

Honours

2018	**Bloomberg Code B AI Challenge**, Finished 3rd in the competition and earned the UI design prize.	*Waterloo, ON*
2017	**Len Richardson Award**, Awarded to the graduating student with the most passion for innovation.	*Mississauga, ON*
2015 - 2017	**Mathematics Contests**, Achieved top 5% in the Fermat, Hypatia & Cayley Waterloo Math Contests.	*Waterloo, ON*

Education

University of Waterloo

Waterloo, ON

Bachelor of Computer Science (Co-op) | Class of 2022 — *Sep. 2017 - Present*

- Planning to double major in Computer Science and Combinatorics and Optimization. (Average: 85%)
- *Online coursework:* Machine Learning (Coursera) in MATLAB, Computational Thinking and Data Science (edX) in Python, Advanced C++ Programming (Udemy).