HARSH JHUNJHUNWALA

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Education

University of Toronto Toronto, CA

Bachelor of Science in Statistics and Economics *Aug. 2018 – May 2022*

- 3rd Year | Fall 2020 GPA: 3.5
- Relevant Courses: Machine Learning and Neural Networks, Statistical Computation and Modelling in R, Financial Economics, Advanced Statistical Modelling, Managing Databases with SQL, Time Series Analysis
- Research Assistant: A Direct Approach to False Discovery Rates, Regularisation and Selection via the Elastic Net, Sparse Principal Component Analysis
- Experience: YEC start-up conference, MUN in China, organised and participated in Hackathons across several universities

Relevant Experience

Findr | *Founder* *May 2020 – Present*

- Developed a web-app and mobile application to help students find partners for courses and competitions
- Deployed using ReactJS, NodeJS, MongoDB and is expected to be used by over 10,000 students across 5 universities.
- Used Scrum Ceremonies (like Sprint Planning, Story Grooming and Sprint Retrospectives)
- Managed sprint backlog tasks and coordinated 5 developers across front-end and back-end in an agile environment

University of Toronto (Fixit) | *Data Analyst* *April 2020 – February 2021*

- Developed a software (endorsed by the university) that recommends personalized review questions to students based on their past answers thereby enhancing performance in exams by over 60%.
- Collaborated with a team of 4 developers to implement Collaborative Denoising Auto-Encoders (unsupervised learning) and build the recommendation engine using Deep Learning frameworks like Tensorflow, Keras with SQL and Tableau.
- Performed A/B Hypothesis testing with extensive data analysis to implement Fixit at the University of Toronto with a user base of over 800 students.

Dathena | *Data Scientist* *January 2021 – February 2021*

- Partnered with Scotiabank and U of T to use financial data to identify anomalies and track money-laundering operations.
- Data Cleaning and Analysis using NumPy and Pandas with Data Augmentation using Variational Auto-Encoders.
- Managed a group of 4 individuals and implemented an SVM attaining an accuracy of 90.4% (Keras, R, SQL)

Codify | *Machine Learning Engineer* *March 2020 – May 2020*

- Partnered with Amazon and the University of Toronto to build an image-recognition algorithm which converts handwritten code to text to be compiled and graded easily.
- Used image recognition through Convolutional Neural Net to convert handwritten code to text with 91% accuracy.
- Integrated Recurrent Neural Net with IntelliSense to check the converted text for potential errors and fix them if under a threshold of 10%. Code is then run through the compiler to be graded.

Facial Keypoints | *Machine Learning Engineer* *March 2020 – May 2020*

- Built a facial recognition model using ResNet architecture through transfer learning with Tensorflow
- Deployed the model through a web-app using Flask and Heroku with extensive data analysis and visualisation.
- The model was developed with a validation accuracy of 85% and is being tuned to detect expressions.

EXTRA-CURRICULAR

Society of Algorithmic Modelling | *Project Lead* *February 2020 – Present*

- Analysing academic papers weekly on Machine Learning and Statistical Modelling
- Implementing ML algorithms: Regression, Auto-Encoders, KNN, Naive Bayes, Clustering

University of Toronto | *Facilitated Study Group Leader* *September 2019 – Present*

- Taught Finance and Economics to undergraduate students at U of T
- Facilitated study groups of 10-15 students and explained advanced concepts

Skills and Publications

Languages: Python, R, MySQL, JavaScript, Bash, HTML and CSS
Frameworks: Tableau, React, NodeJS, Flask, Heroku, AWS
Libraries: Tensorflow, Pandas, NumPy, Pytorch, Matplotlib, scikit-learn, PyTorch, ggplot, Caret
Publication: Recommending Personalized Review Questions using Collaborative Filtering