

# HARSH JHUNJHUNWALA

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## EDUCATION

### University of Toronto

*Bachelor of Science in Statistics and Economics*

Toronto, CA

*Aug. 2018 – May 2022*

- 3rd Year | GPA: 3.2
- Relevant Courses: Machine Learning, Statistical Modelling, Time Series Analysis, Databases with SQL
- Research Assistant: A Direct Approach to False Discovery Rates, Regularisation and Selection via the Elastic Net

## SKILLS AND PUBLICATIONS

**Languages:** Python, R, SQL (Postgres, MySQL), JavaScript, Bash, HTML and CSS

**Technologies:** AWS, Docker, Tensorflow, Flask, Tableau, React, NodeJS, Heroku, Pytorch, Plotly

**Data Science:** A/B Testing, ETL, Data Pipeline, Statistics, Time Series, Hypothesis Testing, APIs, Excel, Git

**Publication:** Recommending Personalized Review Questions using Collaborative Filtering

## RELEVANT EXPERIENCE

### University of Toronto (Fixit) | Data Analyst

*April 2020 – Present*

- 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 libraries like Tensorflow, Keras with SQL.
- 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 and published two research papers.

### 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

## PROJECTS

### Spotty | Machine Learning Engineer

*April 2021 – May 2021*

- Designed a Flask App with Spotify API to recommend music to users using TFIDF vectorizer and performed EDA with Plotly
- Performed sentiment analysis with Twitter and Reddit API from a user's top artists with the backend hosted on Heroku.
- Customised recommendations through Collaborative Filtering and NLP with time series analysis on artist trends.

### Dathena | Data Scientist

*January 2021 – February 2021*

- Employed financial data to perform feature engineering and identify anomalies to track money-laundering operations.
- Managed 4 students and performed Data Analysis with Plotly and Data Augmentation using Variational Auto-Encoders.
- Constructed a Flask App to predict AML scores of individuals using SVM and XGBoost classifier (sklearn) with 90% accuracy.

### 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.

## 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 – May 2020*

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