

Parinita Edke

Experience

Undergraduate Research Student

University of Toronto - MiDATA Lab | Aug 2020 - Present

- Performing a data-driven approach to classify blood patterns in ultrasound knee images using the Fourier transformed image features.
- Comparing features of Fourier transformed ultrasound images and the baseline SVM model features to assess whether the Fourier transformed image features will be assistive in determining the presence of blood in the knee joint.

Software Developer

Bank of Montreal | May 2020 - Aug 2020

- Supplied continuous market data daily through shell scripting to backend to ensure accurate financial decision making in capital markets.
- Developed **SQL** queries and corresponding **Java** code to generate daily market data reports.

Critical Care Research Developer

St. Michael's Hospital | Jul 2019 - Dec 2019

- Researched and applied data smoothing techniques to automate the detection of breathing cycles in noisy ventilator data. Used the **NumPy** and **SciPy** libraries in **Python** to develop the program and reduced data processing time from 1 day per patient to a few seconds per patient.
- Conducted statistical analysis using **R** to help determine outliers in patient data.

Projects

Personalized File Systems *Operating Systems Project*

- Designed and implemented an extent-based file system in **C**.
- Implemented functionality to support file system operations such as creating and deleting directories/files and reading and writing data to files.


Modelling Student Understanding with Online Education *ML Project*


- Designed a machine learning model to predict student answers to unseen diagnostic questions to estimate student ability in personalized online education.
- Used an ensemble of 2-parameter Item Response Theory models to improve baseline model accuracy by **12%**. Placed second in the class Kaggle competition.
- Used **NumPy**, **SciPy** and **Scikit-Learn** libraries in **Python** to build the model.


University Survival Simulator *Software Design Project*


- Used the Model-View-Presenter (**MVP**) architecture to design the game structure.
- Implemented design patterns and followed the SOLID design principles to allow the app to be flexible and be open to extension. Used **Java** to develop the app.
- Created **UML** diagrams and used **Git** for version control to effectively collaborate with other members.

Contact

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 parinitaedke

 Parinita Edke

 <https://parinitaedke.me>

Languages

Python, C, Java, R

Tools and Libraries

NumPy, SciPy, Scikit-Learn, Git

Education

University of Toronto

2018-2022 (expected)

Computer Science Specialist & Statistics Minor
3.9 GPA

Relevant courses:

- Machine Learning
- Data Structures and Algorithms
- Operating Systems
- Software Design

Awards

University of Toronto

- *James A Priestley Admission Scholarship*
- *New College Student Council Admission Scholarship*

John Fraser S.S.

- *Mrs. Margaret Bernasek Memorial Award*
- *Senior Music Award*