Abdullah Paracha

Montreal abdullahfparacha14@gmail.com (343) 988 0823 abudyy.github.io/portfolio-website/
abdullah-paracha Abudyy

Education

B.Sc. **McGill University**, Computer Science and Biology — 2021 – 2026

- **Coursework:** Applied Machine Learning, Intro to Software Systems, Data Structures, Statistics, Linear Algebra

Skills

Languages: Python, C, Java, SQL, JavaScript, HTML, CSS, Bash

Technologies: Flask, React, Git, Pandas, NumPy, Matplotlib, MATLAB, PyTorch, Scikit-learn, APIs, Heroku, Render

Experience

McGill Cricket Club (MCC), VP Events — Montreal, CA, Sept 2024 - Present

- Planned an inter-university tournament with over 50 participants, and a cricket tour overseas for the McGill team.

Self-Employed, Mathematics Tutor — Dubai, UAE, May 2023 - August 2023

- Taught mathematics to a diverse age group, prioritized critical thinking and fun challenges.

Projects

Book Recommendation Site — Book-Recommendation

- Developed a personalized book recommendation system using a dataset of over 1.1 million ratings from 278,000 users and 271,000 books.
- Improved recommendation accuracy by 25% through optimized similarity calculations and data preprocessing.
- Deployed as a web app using Flask and Render, making it scalable and accessible online.

Organ Classification — Organ-Classification

- Built a convolutional neural network (CNN) and MLP to classify medical images from the OrganAMNIST dataset, containing 58,830 images across 11 organ classes.
- Achieved a test accuracy of 88.02% by optimizing the model using PyTorch and data augmentation techniques.
- Tested different learning rates and layers to optimize model performance and improve classification accuracy for future applications

EDA and Regressions — EDA-Regressions

- Performed Exploratory Data Analysis on both the Infrared Thermography Temperature and CBC diabetes indicators dataset with over 1,000 instances to identify key correlations and optimize features.
- Improved Mean Squared Error (MSE) from 0.0613 to 0.0604 by implementing mini-batch Stochastic Gradient Descent (SGD)
- Improved model performance with 86.24% test accuracy in the logistic regression model by optimizing model parameters and scaling techniques.

Interactive Portfolio Website — Portfolio-Site

- Designed and developed a portfolio website to showcase my projects and skills.
- Built using HTML, CSS, JavaScript, React, and ThreeJS with a focus on responsive design and user experience.