Md Rahbir Mahdi

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Education

York University Toronto, ON

Bachelor of Science in Computer Science *Sep. 2023 – Present*

- Dean's Honor List (2023 – Present)

Relevant Coursework: Discrete Math, OOP, Software Tools, Computer Organizations

Experience

FashionIQ Toronto, ON

Co-Founder & Developer *Jan. 2025 – Present*

- Collaborated in a startup focused on leveraging AI and machine learning for personalized fashion recommendations
- Spearheaded the development of an AI-based recommendation engine utilizing TensorFlow, Hugging Face, and OpenAI CLIP to match cultural trends and body types.
- Led efforts in data collection and preprocessing, utilizing Python libraries like BeautifulSoup, Scrapy, and Selenium for web scraping.
- Managed large-scale data storage using Google Cloud Storage, AWS S3, PostgreSQL, MySQL, and MongoDB for structured and unstructured data.
- Collaborated in frontend development using React.js and React Native, creating dynamic, responsive user interfaces and seamless cross-platform mobile apps with Expo.

Home Tutor Mar. 2021

- Successfully taught Mathematics D, Physics and Chemistry to O'level candidates

Projects

HoloDash | *Python, Flask, React, PostgreSQL, Docker* Jan. 2025

- Developed HoloDash, a mobile app that uses AI to generate images based on user-provided text descriptions.
- Built the backend with Python, leveraging frameworks like Flask or FastAPI to support real-time image generation requests.
- Integrated a text-to-image model for generating high-quality images from textual descriptions.

SignNavigator | *Python, MediaPipe, OpenCV* Aug. 2024

- Designed and implemented a hand-gesture recognition system using MediaPipe for hand landmark detection and OpenCV for real-time video processing.
- Achieved a significant accuracy improvement from 80% to 96% by building a classification model using Random Forest Classifier and optimizing features to enhance the recognition of ASL (American Sign Language) gestures.
- Pre-processed gesture data with a custom pipeline and stored features in a structured format using Pickle for reproducibility and model optimization.
- Utilized Python libraries such as NumPy, Matplotlib, and Scikit-learn to handle data, train models, and evaluate accuracy metrics.

SnapNote | *Python, Tkinter, PyTesseract* Feb. 2023

- Developed a feature-rich notebook application using Python and Tkinter, integrating a built-in dictionary powered by web scraping from Wiktionary.
- Integrated Optical Character Recognition (OCR) capabilities with PyTesseract and OpenCV, enabling users to extract text from screenshots.
- Automated screenshot organization with a custom Python script.
- Designed a dynamic, user-friendly GUI.
- Overcame challenges in image preprocessing for OCR accuracy and optimized the management of multiple app windows, improving both performance and usability.
- Extended language support by allowing word definitions in 10 languages, provided the necessary font is available.

Technical Skills

Languages: Java, Python, C, JavaScript, HTML/CSS, R, Verilog, RISC-V Assembly

Technologies/Frameworks: MediaPipe, OpenCV, Scikit-learn, TensorFlow, PyGame, Teachable Machine

Developer Tools: Git, Google Cloud Platform, VS Code, PyCharm, CRAN, Eclipse, Atom