

# Adshayan Balendra

Computer Engineering | University of Waterloo

📧 adshayanB ✉ a5balend@uwaterloo.ca ☎ (647)-809-5275 in adshayan-balendra 📁 adshayanb.github.io

## TECHNICAL SKILLS

**Languages:** Python, C++, Java, JavaScript, HTML, CSS, SQL (PostgreSQL, sqlite3)

**Frameworks:** Flask, Pandas, Django, NumPy, scikit-learn, Tensorflow, REST API, Cypress, Selenium, Plotly

**Tools/Technologies:** Git, JIRA, Jupyter Notebook, Power Apps, Dynamics 365, Postman, Databases

## EXPERIENCE

### Software Developer

Brampton, CA

Loblaws Companies Limited

Sept. 2020 - Dec. 2020

- Rebuilt and deployed team's flagship **Microsoft PowerApp** to reduce paperwork, repetition of tasks and improve efficiency for warehouses **nationwide**
- Leveraged **Oracle/Teradata** databases and **Microsoft Dynamics 365** platforms for these apps to retrieve and use data in near real-time for end users
- Restructured **back-end** client to **transition** a suite of warehouse applications to support a new Microsoft client interface
- Built a **proof of concept** virtual map system to promote safe and minimum contact intra-office travel by providing colleagues with real-time and accurate crowd heatmaps for Loblaws company wide hackathon

### Python Instructor

Toronto, CA

Motala Business School

Oct. 2020 - Dec. 2020

- Co-developed a **Python for Data Analysis** course, creating lecture material on topics such as **Pandas & Numpy**
- Utilized **Jupyter Notebooks** to create exercises on course material to enrich course content

### Quality Assurance & Research Student

Toronto, CA

University Health Network

Jan. 2020 - Apr. 2020

- Established an **automated** testing suite within **Cypress IO** for regression and end-to-end testing; reducing validation testing time by **94%**
- Developed and executed test plans for medical grade mobile and web applications to meet product quality standards and compliance to **ISO 13485** for medical devices
- Worked with the Associate Director to assess the viability and requirements of data visualizations for a researcher platform, accumulating real time clinical data with tools such as **Elastic Stack & R Shiny**
- Collaborated with product managers and developers within a scrum-based agile workflow, using tools such as **JIRA**

## PROJECTS

### Diabetes Doctor

Flask, Pandas, Sklearn

- Co-developed a diabetic platform that screens users for diabetes and tracks their glucose levels & other medical data
- Built entire back-end which involved user creation, authentication, data collection using **Python** and **Flask**
- Designed and implemented a **CRUD Rest API** to handle patient and test data harnessing a **Sqlite** database
- Diagnoses user through a **random forest classifier** machine learning model with an accuracy of **98%** on test data

### COVID-19 Dashboard

Python, Pandas, Plotly

- Built an interactive **real-time** COVID-19 dashboard that analysed and **visualized** John Hopkins COVID data
- Implemented a machine learning model to predict number of cases & deaths two weeks into the future using **Prophet**

### Garage Management System

C++, Object Serialization, Data Management

- Designed a **C++** program to manage inventory by building a database where **objects** are **serialized** & stored in files
- Developed a **CRUD** like structure to enable efficient creation and management of inventory data

### Detection of Diseases

Pandas, Python, Sklearn

- Developed a **supervised** machine learning model for the detection of Parkinson's and breast cancer
- Attained a **95%** accuracy for both models using a **XGBClassifier** and a **linear SVM** respectively

### Cryptoboard

Python, Flask, SQLite3

- Developed a website that manages a user's cryptocurrency portfolios utilizing a cryptocurrency API for price data
- Designed and integrated features like user **verification**, portfolio management and **authenticated** transactions to actively manage portfolios efficiently and **securely**

## EDUCATION

### University of Waterloo

Sept. 2019 - Apr. 2024

Bachelor of Applied Science in Computer Engineering, Honours

1B Term GPA: 89%