UBC Science Co-op

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Vivaan Wadhwa

3rd Year Computer Science & Statistics Student

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TECHNICAL SKILLS & Certifications

- Languages: Java, Python, C/C++, SQL, HTML/CSS*, R
- Tools: Git, GitHub, Microsoft Excel, Tableau*, Terminal
- Software: Unity, Maya, Blender, Autodesk Fusion 360
- Certifications:
  - Python for Data Science and Machine Learning Bootcamp*

    I gained proficiency in Python for data analysis and machine learning, with a focus on implementing algorithms. I also learned to work with NumPy and Pandas for data manipulation, created visualizations using Matplotlib, Seaborn, and Plotly, and explored Natural Language Processing and Spam Filters.

TECHNICAL WORK EXPERIENCE

InfiniAI **Feb. 2022 – Apr. 2022**

Software Developer Intern *Vancouver,BC*

- Collaborated with a team to design and implement a system that used AI and ML to recognize faces in real-time.
- Implemented computer vision techniques such as face detection, feature extraction, and recognition using OpenCV which used a database of over 100,000 photos.
- Conducted thorough testing and debugging of the face recognition system to ensure reliability and an accuracy of 75%.
- Participated in code reviews and implemented feedback from senior developers to improve the accuracy and efficiency of the model.
- Investigated the feasibility of integrating the model into road safety and theft prevention systems.

TECHNICAL PROJECTS

Heart Disease Prediction | *R, KNN, Git* **Feb – Apr 2023**

- Utilized a publicly available dataset from the UCI Machine Learning Repository
- Conducted in-depth EDA, including the creation of multiple scatterplots to visualize and analyze the relationships between various predictor variables and the target variable.
- Employed Grid Search and Cross-Validation techniques to determine the optimal value of 'K' in the K-Nearest Neighbors (KNN) classification algorithm, ensuring the best model performance.
- Orchestrated effective teamwork among four team members, with GitHub serving as the central hub for streamlined collaboration, version control, and synchronized code management.

Turn-Based Card Game | *Java, Swing, Git* **Jan – Jul 2022**

- Engineered a fully functional GUI using basic Java libraries and Swing, allowing users to play a card game against a computer opponent.
- Integrated an Event Log feature, which tracked all changes made during gameplay for improved user experience.
- Added save and load functionality, providing users with the ability to save their progress and pick up where they left off

Face Recognition | *Python, dlib, OpenCV, face recognition* **Jan - Apr. 2022**

- Developed a Python face recognition software, which can recognise different faces and can even maintain a registry of recognised faces.
- Used OpenCV and dlib to develop the algorithm to identify a face.
- Deployed a model of 75% accuracy.
- Added the functionality to play" Rock, Paper, Scissors" with CPU.
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MP3 Downloader and Player | *Python, Tkinter, Matplotlib, MySQL* **Jun – Sep. 2021**

- Developed a Python desktop MP3 player, following OOP design principles.
- Allowed the user to download songs directly from YouTube.
- Used an online SQL server allowing users to have personal accounts.

ADDITIONAL WORK EXPERIENCE

Alma Mater Society UBC **Oct. 2022 – Sep. 2023**
Catering Associate *Vancouver, BC*

- Successfully delivered catering orders to multiple locations on UBC campus
- Direct interaction with the customer to facilitate drop off and pickup
- Ensured safe delivery and pickup of multiple orders in 1 day.

EDUCATION

University of British Columbia **Sept 2021 - May 2025**
BSc, Computer Science & Statistics *Vancouver, BC*

- GPA: 3.95
- Placed on the Dean's Honor List in both my first and second year.

- Currently Acquiring