Saad Shahbaz

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EDUCATION

Bachelor of Arts: ***Major: Computer Science, Minor: Management***
McGill University, Montreal *September 2019 – December 2022*

- CGPA: 3.75 - ***(Dean's Honour List, Tomlinson Award)***
- **Courses:** Data Structures and Algorithms, Databases, Data Science, Applied Machine Learning, Software Design, Applications of ML in Real World Systems, Operating Systems.

TECHNICAL SKILLS

- **Languages:** Python, Java, C, JavaScript, Bash, SQL, Assembly, VBA, R, CSS
- **Technologies**: Git, Linux, Docker, Power BI, Jira, MySQL, Pandas, NumPy, PyTorch, Tensorflow, React, HTML, MongoDB, Node.js,
- **Cloud Computing:** Amazon Web Services (AWS), Microsoft Azure, Oracle

WORK EXPERIENCE

Data Science and Analytics Intern, *Air Liquide*, Montreal May 2021 - Present

- Headed the Sales and Operation planning (S&OP) project, forecasting the sales, quantity and volume for the next 18 months using Time Series analysis with an accuracy of 95%.
- Constructed a Natural Language Processing (NLP) model for the Email Classification project to internally classify English and French emails to their respective departments with an accuracy of 96%.
- Developed 90% custom Microsoft Power BI dashboards, visualizations and interfaces to deliver meaningful and actionable insights on the S&OP, Email Classifications and several other projects.
- **Technology Stack**: Python, SQL, Power BI, Jira, Git, Docker, Pandas, NumPy, MS Excel, VBA

Vice President Sponsorship and Software Developer, *Hack4Impact*, Montreal January 2022 – Present

- Vice President Sponsorship for Hack4Impact which is a student run club to creates software for NGOs.
- Responsible for contacting and convincing companies to sponsor related events such as networking events, sponsor talks, and career counseling events for younger students.
- Collaborated with six developers to develop a mobile app for MADA community center using Flask and React.

Computer Science Help Desk Tutor, *McGill University*, Montreal January 2021 - Present

- Tutored approximately 400 students enrolled in introductory courses assisting them to grasp key concepts and debugging their codes with a 100% record of identifying the problems and finding a solution.
- Orchestrated review sessions for the course COMP-206 *(Intro to Software Systems)* for students to prepare them for the midterms and the final exam, with a total attendance of around 300.
- **Technology Stack**: Python, Java, Python, C, Bash, MIPs, SQL.

SELF-DIRECTED PROJECTS

SqueezeNet: AlexNet Accuracy December 2021

- Implemented the SqueezeNnet architecture proposed in the paper on CIFAR10 and Fashion-MNIST datasets validating the accuracies of the model and introduced minor modifications to the model showcasing a systematic approach to building CNN architectures using **Python** and **PyTorch.**

Image Classification November 2021

- Built a custom 13 layered CNN model to classify a noisy MNIST dataset comprised of letters and digits achieved an accuracy of 94.85% using **Keras - Tensorflow**.

Covid Vaccination Database Application April 2021

- Designed a database application using **ER** diagrams to facilitate the COVID-19 vaccination campaign.
- Implemented **SQL** database on **DB2** to create an application using **Java** for the client to interact with it.

Mini Operating System January 2021

- Developed a mini operating system by implementing a fully functional kernel, OS Boot Sequence, Backing Store, Memory Manager, and drivers using **C** and **Bash**

US Elections 2020 Analysis November 2020

- Directed 2 developers in a project to analyze the concerned perceptions on the legitimacy of the US elections by extracting over 10,000 posts from 2 subreddits using **Python's Request and Pandas library.**
- Applied knowledge of *dynamic programming* using **Java** to develop a script that utilized ***min profit max weight Knapsack*** to calculate the minimum number of people Biden had to convince to win.

INTERESTS AND EXTRACURRICULARS

- Languages: Advanced Level – English, Urdu, Hindi; Beginner – French
- Member of the McGill Squash Team