Saad Shahbaz

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EDUCATION

*Bachelor of Arts: **Major: Computer Science, Minor: Management***
McGill University, Montreal   *September 2019 – December 2022*
- CGPA: 3.77 - *(Dean's Honour List, Tomlinson Award)*
- **Courses:** Data Structures and Algorithms, Databases, Data Science, Applied Machine Learning, Software Design, Programming Challenges, Operating Systems, Principles of Web Development

TECHNICAL SKILLS

- **Languages:** Python, Java, C#, 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, Jenkins, TeamCity, BitBucket
- **Cloud Computing:** Amazon Web Services (AWS), Microsoft Azure, Oracle

WORK EXPERIENCE

Full Stack Developer Intern   August 2022 – Present
Air Liquide, Montreal
- Built the PowerZone application to provide the sales team to identify potential clients based on their location.
- Developed the front-end in Vue.js to allow the UI to show the postal codes for the selected PowerZone on the heatmap and allow the user to edit the prospects to provide feedback.
- Designed the login page to provide access based on user credentials retrieved from the company's authenticator and enable them to export the leads to Salesforce.
- **Technology Stack**: Vue.js, Flask, JavaScript, Postgres, HTML, CSS, RabbitMQ, AWS, GitLab, Jira

Software Engineer Intern   May 2022 – August 2022
Citi Bank, Mississauga
- Migrated a custom solution to a Citi wide enterprise by developing a CI/CD pipeline on TeamCity for the deployment of add-ons and an in-house application for each user.
- Built a C# application to deploy the add-ons to the users' registries, folders as well creating shortcuts impacting around 2500 users to seamlessly switch between environments and streams.
- Reduced deployment and update times by 60% by creating individual agents for each application enhancing user experience and providing four times stable versions for first time installations.
- **Technology Stack**: C#, TeamCity, Docker, BitBucket, Jira, React, XML, Snowflake

Data Science and Analytics Intern   May 2021 – April 2022
Air Liquide, Montreal
- 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 Finance and Sponsorship   January 2022 – Present
Hack4Impact, Montreal
- Proposed sponsorship opportunities to 5 companies with a 100% success rate resulting in the highest amount of sponsorship money Hack4Impact has received since its establishment.
- Lead the recruitment season for the club preparing for the technical rounds, interviewing 54 developers, and setting up boot camp for the 12 hired developers.
- Collaborated with six developers to develop a mobile app for MADA community center using Flask and React.

SELF-DIRECTED PROJECTS

Deep Fakes Detection   March 2022
- Evaluated if a video is deepfake using **CNNs** and **RNNs** to detect inter-frame & intra-frame inconsistencies.

SqueezeNet: AlexNet Accuracy   December 2021
- Implemented the SqueezeNet architecture proposed in the paper introducing minor modifications to the model showcasing a systematic approach to building CNN architectures using **Python** and **PyTorch**.

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**.