

Sarvasv Arora

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EDUCATION

McGill University | GPA: 3.86

Bachelor's Degree in Computer Science, Minor in Statistics

Montreal, QC

Sept. 2020 - Dec. 2023

- Relevant courses: Distributed Systems, Machine Learning, Databases, Parallel Computing, Functional Programming and Logic, Honors Data Structures and Algorithms, Operating Systems, Applied Robotics, Honors Math for ML, Honors Linear Algebra, Probability and Statistics.
- James McGill Prestige Scholarship (highest valued), Deans Honor List (top 10% academic standing in faculty).

EXPERIENCE

Amazon (AWS Simple Workflow)

May 2022 - August 2022

SDE Intern

Vancouver, BC

- Onboard over 100 SWF ops scripts required for handling customer requests onto Mechanic Service (an internal tool to execute scripts on prod hosts), thereby making the operations much more secure, efficient and concise as compared to the current stop-gap method.
- Provision the resources (Pipeline, Apollo environments, Clusters, etc.) required to run Mechanic service on SWF ops fleet in various AWS partitions, and improve the ops test coverage by around 30%.
- Write runbooks/documentation for new tools, automation script to update existing runbooks with the new command syntax, and an extensive tester script to automate ops tools testing.
- Non-swimlane task: use CloudFormation to group stacks into mutex groups for all the SWF services. Took this as an extra challenge to learn more about the SWF infrastructure.

Computer Science Undergraduate Society (CSUS), McGill University

May 2022 - Present

Vice President (Internal)

Montreal, QC

- Restructure and spearhead the industry mentorship program, bringing together a team of 15 industry professionals to closely mentor a pool of over 50 McGill CS students over the course of a semester on building technical skills essential to thrive in the tech industry.
- Plan and organize lectures and workshops for the program. Advocate ethics, equity and sustainability in tech.
- Design stickers for give-aways in CSUS events and merch for annual CSUS sales.

HackMcGill, McGill University

May 2022 - Present

Development Coordinator

Montreal, QC

- Work on the development team of McHacks, one of the largest hackathons in Canada.
- Maintain the hackathon website, create applicant screening tools for the backend API leading to smoother internal operations.

Department of Computer Science, McGill University

Sept. 2021 - Present

Teaching Assistant

Montreal, QC

- Facilitate office hours, grade assignments and exams, monitor discussion boards, and attend bi-weekly TA meetings for the Intro to Software Systems course, having over 400 students.

Data Mining and Security Lab, McGill University

June 2021 - August 2021

Undergraduate Research Assistant

Montreal, QC

- Research on the application of deep learning NLP methods in the domain of authorship analysis.
- Update the old ICWSM12 Twitter dataset to a new custom dataset with millions of tweets, scraped using twint and scweet libraries, and the Twitter API.
- (WIP) Re-engineer the StyloMatrix project's existing codebase from Java to PyTorch (Python), thereby making it possible to incorporate the latest developments in NLP into the project.

SPARK, IIT Roorkee

May 2021 – June 2021

Research Intern

New Delhi, India

- Guided the previous research of bit-flip attack on image classification models to the under-explored domain of NLP models like LSTM, BERT and RoBERTa by developing custom model layers and reformulating the existing code for the adversarial attack.
- Refined the attack dynamics, further speeding up the adversarial attack by as much as 15-20% in some cases.

PROJECTS

⌚ Bash Shell Spin-Off (COMP 310 project) | C, Bash, GNU tools

- Code the interpreter, scheduler, shell memory and demand paging mechanisms for the class project.

⌚ Better.me (McHacks 2022) | Python, PyTorch, NLP, Streamlit.io, Google Cloud Platform

- Conceptualize the app, devise the journaling system and core algorithm to detect sentiment/suicidal thoughts based on the user's journal entries.
- Project won the People's Choice App and the Best use of GCP hackathon awards.