

Sarvasv Arora

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EDUCATION

McGill University | GPA: 3.61

Montreal, QC

Bachelor's Degree in Computer Science, Minor in Statistics

Sept. 2020 - Dec. 2023

- Relevant courses: Distributed Systems, Networks, Cloud Computing, 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 Step Functions)

May 2023 - August 2023

SDE Intern

Vancouver, BC

- Onboard Step Functions Console integration tests from Cloudwatch Synthetics to Hydra Testing Platform.
- Provision cloud resources required for setting up the integration testing platform with the existing service infrastructure, using infrastructure as a service (IaaS) tools.
- Laid foundation to convert several backend private APIs into Console-facing (frontend) NPM libraries utilizing AWS SDK as a part of a long-term team goal. Successfully converted one API during my internship.

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.

Department of Computer Science, McGill University

Sept. 2021 - April 2023

Teaching Assistant (COMP 206 Intro to Software Systems, COMP 421 Databases)

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.
- Write detailed class notes, used and appreciated by hundreds of students.

Computer Science Undergraduate Society (CSUS), McGill University

May 2022 - April 2023

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.

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.

TECHNICAL SKILLS

Languages: Python, Typescript/Javascript, Java, C/C++, OCaml, R

Frameworks: PyTorch, TF/Keras, Express.js, Flask, FastAPI, React, Gatsby, Cypress/Jest, PyTest

Developer Tools: Git, Bash/Zsh, AWS SDK/CDK, Google Cloud Platform, GNU tools