

GEORGE SAAD

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Education

University of Toronto

Bachelor of Applied Science in Engineering Science

Major in Machine Intelligence, Certificate in Engineering Business (Anticipated)

Sep. 2019 – May 2023

GPA: 3.77 (out of 4.0)

Experience

Vector Institute

Applied Machine Learning Intern

- Developing AI software projects alongside machine learning researchers, professors, and engineers

Jan. 2023 – Present

Toronto, ON

University of Toronto

Teaching Assistant

- Teaching Assistant for: Introduction to Programming (ESC180) in Python, Algorithms & Data Structures (ESC190) in C

Sep. 2021 – Present

Toronto, ON

Meta (Facebook)

Software Engineer Intern

- Designed **Thrift** service to add tracking to over 260 million external Instagram story and profile links per day
- Implemented client-side app detection feature which resulted in a 120% increase in ad impressions for Instagram users without linked Facebook accounts, resulting in a roll out to 100% of Instagram users
- Refactored key Instagram Ads endpoints in **Hack (PHP)** and **Python Django** to reduce runtime & memory overhead

May 2022 – Jul. 2022

Menlo Park, CA

Content Turbine

Software Development Freelancer

- Built NoSQL datastore and caching modules for the Akka Play! and Vert.x frameworks in **Java** using **Singleton** and **Dependency Injection (DI)** design patterns, and reactive programming, with Guice and JUnit unit testing
- Wrote ASCIIDOC documentation, created demo apps and wrote technical blog posts

Dec. 2020 – Sep. 2021

Mississauga, ON

Loblaw Digital

Software Development Co-op

- Led research into content targeting engine and presented to the 40+ member PC Optimum team to enable personalization of marketing tiles for consumers
- Set up latency log tracking in various functions in the **Spring Boot Java** backend and created **GCP** metrics and dashboards to extract and display the data, with 200k+ data points collected per hour
- Created multiple endpoints to reduce development and testing time by 60% for various parts of the PC Optimum product

May 2021 – Aug. 2021

Toronto, ON

FoodTrain

Lead Software Engineer Intern

- Led a team of 10 developers to build full-stack MVP using **React Native**, **Node.js**, and **MongoDB** in under 6 months

May 2020 – Dec. 2020

Sunnyvale, CA

Delovary

Software Engineer Intern

- Built a data science tool in **Python** to scrape and graph 900+ data points, reducing time for management by over 80%

Mar. 2020 – Jun. 2020

Sunnyvale, CA

Research / Projects

Pre-training to Speed Up Reinforcement Learning Thesis

- Researching methods to improve on the sample efficiency of reinforcement learning when using the A2C framework

Sep. 2022 - Present

DeepDixit | Paper | Demo | *PyTorch, CLIP, SIREN, BigGAN, Python Flask, React, SQL*

- Built an image caption guessing game using **SIREN + BigGAN** based networks to create an image generator with a **CLIP-based** scoring function to fine tune the model based on text prompts

Jan. 2022 - Apr. 2022

micromalaria | Paper | *ResNet, Python Flask*

- Fine-tuned a **ResNet** classifier to diagnose malaria-infected cells, achieving a 99% decrease in false positive rate

Sep. 2021 - Dec. 2021

GPT-3 for Finance | Github | *GPT-3, Python, Flask*

- Fine-tuned **OpenAI's GPT-3** to fill a balance sheet using natural statements and created a **Flask** demo app
- Received 100,000 views, featured on InfoQ and on Y Combinator Hacker News

Jul. 2020

Open Source Contributions

JHipster Database Integration | Pull Request | *Java, Spring Boot, Spring Data, NoSQL*

- Adding a popular NoSQL database service to JHipster, a project with over 18,000 stars and 156,000 monthly downloads

May 2021 - Jul. 2021

Technical Skills

Languages: Python, Java, JavaScript, C/C++, PHP/Hack, HTML/CSS, YAML, PostgreSQL, MATLAB

Technologies: PyTorch, JAX, Numpy, Pandas, Scikit Learn, Matplotlib, Spring Boot, React, Node, Flask, Django