GEORGE SAAD

📞 647-544-5877 ✉ g.saad@mail.utoronto.ca 🔗 linkedin.com/in/gkysaad ⓞ github.com/gkysaad 🌐 georgesaad.tech

Education

University of Toronto **Sep. 2019 – May 2023**
Bachelor of Applied Science in Engineering Science *GPA: 3.8 (out of 4.0)*
Major in Machine Intelligence, Minor in Engineering Business (Anticipated)

Experience

University of Toronto **Sep. 2021 – Present**
Teaching Assistant *Toronto, ON*
- Teaching Assistant for: Introduction to Programming (ESC180) in Python, Algorithms & Data Structures (ESC190) in C

Meta **May 2022 – Jul. 2022**
Software Engineer Intern *Menlo Park, CA*
- Designed **Thrift** service to add tracking to over 260 million external Instagram story and profile links per day
- Implemented client-side app detection feature and ran controlled experiment on 4% of users to determine impact, which resulted in a 120% increase in ad impressions for Instagram users without linked Facebook accounts
- Performed major backend code improvement in **Hack (PHP)** and **Python Django** for the Instagram Ads endpoints

aUToronto **Sep. 2021 – Apr. 2022**
Mapping Software Team Member *Toronto, ON*
- 1st Place Winner of 2022 SAE Autodrive Challenge II
- Maintained testing track map in OpenStreetMap using **JOSM** and implemented Python methods with **PyOSM** library

Content Turbine **Dec. 2020 – Sep. 2021**
Software Development Freelancer (Part Time) *Mississauga, ON*
- 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
- Contributed to the **JHipster** open-source project (over 18,000 stars) by implementing a major upgrade for a **Spring Data** SDK integration, including **Full Text Search (FTS)**
- Wrote ASCIIDOC documentation, created demo apps and wrote technical blog posts

Loblaw Digital **May 2021 – Aug. 2021**
Software Development Co-op *Toronto, ON*
- 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
- Led research into content targeting engine and presented to the 40+ member PC Optimum team to enable personalization of marketing tiles for consumers
- Created various internal self-serve and admin endpoints to reduce development, testing, and debugging time by over 60% for various parts of the PC Optimum product

FoodTrain (formerly OrangeTopi) **May 2020 – Dec. 2020**
Lead Software Engineer Intern *Sunnyvale, CA*
- Led a team of 8 – 10 developers in developing a **React Native** mobile app MVP in under 6 months by providing guidance and developing components, including app notifications and authentication with the React Context API
- Reduced deployment time by over 90% by implementing a **CI/CD** pipeline for automatic deployment
- Developed multiple backend functions in **Node.js** and **Express.js**, including all payment and email handling

Open Source Contributions

JHipster Database Integration | Pull Request | *Java, Spring Boot, Spring Data, NoSQL* **May 2021 - Jul. 2021**
- Adding support for a popular NoSQL database service to the JHipster project with over 156,000 monthly downloads

Couchmove Full Text Search (FTS) | Pull Request | *Java, Couchbase* **Jun. 2021**
- Resolved Github issues and implemented major bug fixes for the FTS functionality in the Couchmove project

Projects

DeepDixit | Paper | *PyTorch, CLIP, SIREN, BigGAN* **Apr. 2021**
- 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

Technical Skills

Languages: Python, Java, JavaScript, C/C++, PHP/Hack, HTML/CSS, YAML, PostgreSQL, MATLAB
Technologies/Frameworks: Spring Boot, React.js, React Native, Node.js, Express.js, Flask, Django, Thrift, Git, Couchbase, Linux, GCP, Firebase, Play Framework, Vert.x, JHipster, Airbyte