# GEORGE SAAD

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## 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 the Engineering Science Introduction to Programming course (ESC180)

**Content Turbine**                                                                                              **Dec. 2020 – Present**
*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
- Contributing 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

**Delovery**                                                                                                        **Mar. 2020 – Jun. 2020**
*Software Engineer Intern*                                                                                               *Sunnyvale, CA*
- Reduced market research time by over 80% by building a **Python** web scraper using Beautiful Soup to scrape and graph 900+ data points using **Matplotlib**
- Designed and developed the cart user flow and other major frontend components in **React.js** with Material-UI

## 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

**crowd.data** | *Node.js, Express.js, React.js, CockroachDB, PostgreSQL*                              **Jan. 2021**
- Top 4 out of 30 projects submitted for the Dropbase API prize at Hack the North 2020++

**GPT-3 for Finance** | *GPT-3, Python, Flask*                                                                          **Jul. 2020**
- Built a RESTful **Python Flask** server to fill a balance sheet using natural statements, using the **OpenAI GPT-3** API
- Received 100,000 views, featured on InfoQ and on Y Combinator Hacker News

## Technical Skills

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