# **George Saad**

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### **Education**

#### University of Toronto | Engineering Science - Bachelor of Applied Science (BASc) | GPA: 3.8/4.0

2019-2023

- Major in Machine Intelligence, Minor in Engineering Business (Anticipated)
- Relevant Courses: Introduction to Programming (4.0), Algorithms & Data Structures (4.0)

### **Work Experience**

**Loblaw Digital** 

Starting May 2021

**Incoming Software Development Intern** 

Toronto, Ontario

Freelance

December 2020 - Present

Software Engineer

Mississauga, Ontario

- Built Couchbase 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, and created a demo app and an introductory blog post

OrangeTopi

May 2020 - December 2020

Lead Software Engineer Intern

Sunnyvale, California

- 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

March 2020 - June 2020

Software Engineer Intern

Sunnyvale, California

- 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
- Created an API using Node.js and Express.js to handle all payment processing with PayPal Braintree Payments

# **Projects / Accomplishments**

crowd.data, Hack the North 2020++ (Project, Blog)

January 2021

- Top 4 out of 30 projects submitted for the Dropbase API prize
- Developed Node.js and Express.js RESTful backend and React.js frontend components with Chakra UI
- Created 4 data models with CockroachDB (PostgreSQL) using the Sequelize ORM, and Dropbase API integrations

### **GPT-3 for Finance** (Demo)

July 2020

- Built a RESTful Python Flask server to create and fill a balance sheet based on natural statements, using the OpenAI GPT-3 NLP API and the Google Sheets API
- Received 100,000 views, featured on InfoQ and on Y Combinator Hacker News front page

## HyperBot, UofTHacks VII 2020 (Code)

January 2020

- Won 1<sup>st</sup> out of 70 teams by building the best healthcare chatbot (Hypercare API prize)
- Employed Google Cloud App Engine to host a RESTful Python Flask backend to receive POST requests from webhooks and Google Firebase to store and update a Firestore database using JSON files
- Implemented Hypercare API integration to receive/send messages, schedule appointments, and find doctors
- Used a Python ELMo module to preform NLP on user input and map it to a symptom to produce a diagnosis

#### **Data Science/ML Learning Project**

January 2020 - March 2020

- Developed KNN (k-Nearest Neighbors) algorithm in Python 3 with 90%+ accuracy using the Iris dataset
- Fitted the Iris dataset to a Decision Tree Classifier using scikit-learn and achieved 92% accuracy

### **Skills**

- Languages: Python, Java, C, C++, HTML, CSS, JavaScript, ES6, JSX, MATLAB
- **Technologies:** React.js, React Native, Node.js, Express.js, Python Flask, CockroachDB, PostgreSQL, Verilog, Google Cloud, Google Firebase, Git, Android Studio, Expo, Couchbase, Play Framework, Vert.x