# **George Saad**

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## **Education**

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

2019-2023

• Relevant Courses: Introduction to Programming (4.0), Algorithms & Data Structures (4.0)

# **Work Experience**

**Freelance** 

December 2020 - Present

Software Engineer

Mississauga, Ontario

- Built a **Couchbase** datastore and caching module for the Akka **Play! Framework** in **Java** using the **Singleton** and **Dependency Injection (DI)** design patterns, 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 by providing guidance on React Native, reviewing code, approving PR's, and leading product demos
- Developed **50%+** of the **React Native** mobile app for **Android** and **iOS** in a fast-paced environment, including **Expo**, app notifications, and authentication with the **React Context API**
- Developed multiple backend functions in Node.js and Express.js, including all payment and email handling
- Reduced deployment time by over 90% by implementing a CI/CD pipeline for automatic deployment

Delovery

March 2020 - June 2020

Software Engineer Intern

Sunnyvale, California

- Built a Python web scraper using Beautiful Soup to scrape 915 data points and graphed it using Matplotlib
- Designed and developed several major frontend components with React.js, including the entire cart user flow, including retrieving data from mock APIs and the Node.js backend API
- Created an API using **Node.js** and **Express.js** to handle all payment processing with Braintree Payments

# **Projects / Accomplishments**

**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**
- Featured on InfoQ and received 100,000 views
- Used Git for coordination of work by creating branches, PRs, and reviewing code

### 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)
- Used 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
- Used Hypercare API to receive and send messages, schedule appointments, and find other doctors
- Used a Python **ELMo** module to preform **NLP** on user input and map it to a symptom to produce a diagnosis

### **HootGuard**, Hack the North 2019 (Code)

September 2019

Created an Android app in Java that detects drowsy driving, with successful testing on 8+ users, using
CameraX library to retrieve image of face and ML Kit from the Google Firebase API for facial recognition

### **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, Verilog, Google Cloud, Google Firebase, Git, Android Studio, Expo, Couchbase, Play Framework