

# Kevin Bian

Student // Software Engineer // Leader

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## Skills

**Languages:** Python, Javascript, HTML, CSS, Java, C++, Go

**Technologies:** Angular, React, Express, Node.js, MongoDB, GraphQL, Android Studio, Linux, Google Cloud Platform

## Experience

### Software Engineer Intern (Search & Navigation) | TripAdvisor LLC

Jan – Apr 2020 (4 Months)

- Engineered features including geo-scoped search results and URL construction, used React, Redux, GraphQL, and Java servlets to enhance the **user experience of 400+ million monthly travellers**
- Shipped and A/B tested optimizations that suppress irrelevant search results, incorporating Elasticsearch facet scores
- Enhanced backend tracking capabilities with Java through **scalable** log reporting, data collection, and behavioral analysis of **2+ million points of search data**
- Leveraged caching in Javascript to **reduce geolocation retrieval times by 50%** on nearby typeahead searches
- Developed ETL pipeline algorithms, processing core data for machine learning/analytics in Python, SnowSQL, and Hive

### Software Engineer Intern | Go Fleet Corporation

May – Aug 2019 (4 Months)

- Spearheaded architecture and development of flight-board for Emirates Airlines/Dubai Airport, incorporated Angular with GraphQL to pull, configure, and display over **500 000 data points** daily
- Utilized techniques such as parallel requests and pagination on backend API's, **reducing initial load times by up to 45%**
- Led the development of an Express backend integration with Typescript, automating long manual networking processes
- Engineered NLP tools such as priority classification and article recommendation, used Python, Tensorflow, and Flask to achieve **accuracy scores of over 88%**

## Projects/Extracurricular

### Type It | Multiplayer Web Typing Game

- Built a multiplayer game using Node.js, Express, and Socket.io where players are given 5 seconds to type a random word

### Bian Photography | Photography API

- Implemented a RESTful API using MongoDB and Go for my personal photography collection

### Super Solver | Solves Sudoku Given Image File

- Leveraged image processing techniques using Python, OpenCV, and Numpy to extract Sudoku grid from image
- Trained a KNN-classifier on MNIST dataset using Tensorflow and Scikit-Learn to create a **machine learning OCR that detects digits with 96% accuracy**

### Mood – Hack the North | Anonymous Messaging App

- Developed a mobile app using Android Studio, Java, and Firebase with a matching system and NoSQL cloud database, allowing users struggling with mental health to connect with others

### Volunteer Lead | Hack the North 2019

- Trained, managed, and led a team of **300+ volunteers for Canada's biggest hackathon with 2000+ attendees**
- Collaborated with organizers on multiple operational tasks such as enforcing proper security protocol, delegating tasks, and executing major activities for attendees

## Education

### University of Waterloo | Honours Bachelor of Computer Science, Co-op

2018 – 2022 (expected)

President's Scholarship of Distinction | **3.75/4.00 cumulative GPA (84%)**

Omelette Flipping Enthusiast • Avid Plant Collector • Space Fanatic • Weekend Photographer • Jazz Musician