Kevin Bian

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Skills

Languages: Python, JavaScript, Typescript, Java, C++, C, SQL, Go
Technologies: Angular, React, Express, Node, MongoDB, GraphQL, Android Studio, Linux, Google Cloud Platform

Experience

Tripadvisor   Jan — Apr 2020
Software Engineer Intern — Search & Navigation   *Ottawa, ON*

- 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 travelers**
- Leveraged caching in JavaScript to **reduce geolocation retrieval times by 50%** on nearby typeahead searches
- Enhanced backend tracking capabilities with Java through scalable log reporting, data collection, and behavioral analysis of **2+ million points of search data**
- Shipped and A/B tested optimizations that suppress irrelevant search results, incorporating Elasticsearch facet scores
- Developed ETL pipeline algorithms to process core data for machine learning/analytics in Python, SnowSQL, and Hive

GoFleet   May — Aug 2019
Software Engineer Intern   *Toronto, ON*

- Spearheaded architecture and development of flight dashboard 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 & Community

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

Hack the North 2019 — Volunteer Lead
- 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   2018 — 2022 (Expected)
Honors Bachelor of Mathematics, Computer Science and Statistics (Double Major), Co-op
President's Scholarship of Distinction — **3.75/4.00 cumulative GPA (84%)**
Relevant coursework: Object Oriented Development, Data Structures, Algorithm Design, Combinatorics, Statistics, Functional Programs