

# Kunalan Kevin Subagaran

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## Education

### Queen's University

*Ontario, Canada*

BACHELORS IN COMPUTER SCIENCE

*Sep. 2019 - Apr. 2023*

- Awards: Ratehub Award in Computing, Queen's University Excellence
- Courses: Data Structures, Computer Architecture, Logic for Computing Science, Discrete Math for Computing, Intro to Computer Science

## Work Experience

### Shop Bonsai

*Toronto*

FULL-STACK ENGINEER INTERN

*May. 2021 - Present*

- Techstack: TypeScript, Node.js, Apollo, GraphQL, React.js, MongoDB
- Added features to internal dashboard including product filters, and a user management system for administrators.
- Created external order fulfillment system for use by the Customer Experience team.

### Shop Bonsai

*Toronto*

SITE RELIABILITY ENGINEER INTERN

*Jan. 2021 - Apr. 2021*

- Techstack: Bash, Terraform, Docker, Kubernetes, Google Cloud, CI/CD, TypeScript, Node.js, Express.js
- Implemented infrastructure as code using Terraform, automating Google Cloud deployments and MongoDB cluster creation.
- Improved monorepo by transitioning to Yarn V2 with local caching speeding up deployment and CI/CD workflows by 18 minutes.
- Revamped Express image API written in TypeScript by decoupling upload/download and splitting into micro-services.
- Optimized Docker build size by over 90% by implementing multistage builds and parent images.
- Enforced best practices with linting and E2E tests through GitHub Actions and Semaphore CI.

## Extracurricular Activity

### Limestone Capital

*Kingston*

DIRECTOR OF TECHNOLOGY

*Apr. 2021 - Present*

- Techstack: HTML, JavaScript, CSS, Bootstrap, jQuery, PHP
- Resolved website bugs and improved Google Lighthouse score by optimizing images, and removing repeated code, and removing unused CSS.

### Queen's Tech & Media Association

*Kingston*

SOFTWARE DEVELOPER

*Apr. 2020 - Present*

- Techstack: JavaScript, React.js, Node.js, Express.js, Stripe, Firebase, Bootstrap
- Developed Pronto a rental marketplace web app for students.
- Responsible for CRUD system for managing user's posts, user log-in and authentication, refund capability, a custom live messaging component, and a Stripe API to handle secure transactions between users of the application.

### Queen's University Algorithmic Network & Trading Team

*Kingston*

ALGORITHM DEVELOPER

*Sep. 2020 - Apr. 2021*

- Techstack: Python, NumPy, pandas, scikit-learn
- Created forex trading algorithm which was evaluated and trained on the Quant Connect Platform.
- Used statistical models such as ARIMA to make predictions based on correlation between forex markets and commodities.
- The trading algorithm was able to make a profit of \$90,000, or 1000% from an initial investment of \$10,000.

### QMIND

*Kingston*

AI DESIGN TEAM MEMBER

*Sep. 2019 - Apr. 2021*

- Techstack: Python, TensorFlow, NumPy, pandas, Flask, React.js, JavaScript, Material UI
- Created an all-in-one Python package for recommender systems and uses a combination of deep, mixed, and matrix-based systems.
- Presented the package at CUCAI - Canada's largest undergraduate AI conference.

### Pickering High School

*Ajax*

TEACHER'S ASSISTANT

*Sep. 2018 - May. 2019*

- Taught Java, and concepts such as Data Structures and Object-Oriented Programming to over 25 students during my Grade 12 year.

## Skills

<b>Languages</b>	JavaScript, TypeScript, HTML, CSS, Python, Java, Kotlin, Bash, C, C#, Go, MATLAB
<b>Technologies</b>	Node.js, Deno, Apollo, REST APIs, GraphQL, MongoDB, Firebase, SQL
<b>Frameworks</b>	Express.js, React.js, Svelte, jQuery, Flask, TensorFlow
<b>DevOps</b>	Docker, Kubernetes, Terraform, GitHub Actions, Semaphore CI, Google Cloud Platform, CI/CD