

Kai Ferrall

web: kaiferrall.com
mail: kaiferrall@gmail.com
github: kaiferrall
linkedin: kaiferrall

EDUCATION

Queen's University — BAsc. Applied Mathematics and Computer Engineering

2017 - 2022 (1 year internship)

Engineering Society Software Development Team — Team Lead

EngLinks — Engineering Tutor

Relevant Course Work

Data Structures, Digital & Embedded Systems, Control Theory, Signal & Systems Theory, Calculus 3, Computer Architecture, Probability 1 & 2, Linear Algebra 1 & 2, OOP for engineers.

EXPERIENCE

ecobee Inc. — Software Engineer Intern

May 2020 - present

Working with internal stakeholders to automate and optimize business systems.

Developed drop-ship data pipeline with Google Cloud, MySQL and various SFTP services, **saving \$50,000/yr.**

Architecting and creating various distributed pipelines to handle customer order validations, reducing error costs.

Pitch Development — Full Stack Developer

May 2019 - 09/19

Worked directly with designers and clients, gained great professional communication/collaboration experience.

Developed RESTful media microservice, utilized across 3 applications to handle images and video.

Created user cache service with Redis and Node.js, on average **saving 176ms per authenticated request.**

Acouter Inc. — Frontend Developer

May 2018 - 09/18

Developing generalized React.js components for flexible use across application.

Implementing UX features, and UI features from Figma.

PROJECTS & CLIENT WORK

Sexual Assault Centre App, Android App

2017/2018

In a team of 4, designed and developed an Android app for the Sexual Assault Centre of Kingston.

Java, Android Studios, XML

HeadtoHead.ca, CMS Subscription Platform

2019

Developed **full admin and user authentication system** along with subscription platform using Stripe API.

Application has been **live with subscribers for 1.5 years.**

Express, React + Redux, MongoDB, Stripe API

[private github](#) [live application](#)

Feedback, Live Feedback Web App

2017/2018

Developed anonymous live feedback platform, to allow my professors to garner feedback more easily.

Included live poll results and graphics, unique code for form that closes after set time period.

Used **natural language processing on comments**, to classify as positive or negative.

Express, React + Redux, MongoDB

[github](#) [live application](#)

SKILLS

Languages — Python 3, Node.js, JavaScript, Java, C, HTML5, CSS3

Frameworks & Libraries — React.js, Redux, Express, Flask, JQuery

Tools/Other — Google Cloud Platform, git, MongoDB & MySQL, API creation/integration, networking & HTTP, Redis