Kai Ferrall

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SKILLS

Languages — Python 3, Node.js, JavaScript/HTML5/CSS3, C
Frameworks/Libraries — Express, React, Redux, OpenCV, NumPy, Pandas, jQuery, Junit
Tools/Other — Jira, MongoDB & MySQL, Redis, Google Cloud & AWS, API creation/integration, microservice design/dev, regex

EXPERIENCE

ecobee — Software Engineer Intern   *05/20 - present*
Minimized error costs by developing data pipeline with SFTP server and Google cloud functions.
Some random filler text to make it filled out.

Pitch Development — Full Stack Web Developer   *05/19 - 09/19*
Developed generic media microservice, saving **approximately 40 hours** of work.
Developed cache service with Redis. On average **saving 176ms per authenticated request**.

PROJECTS & WORK

Viral Disease Model, Opinion Dynamics Model   *2018*
In a team of 4 developed a GUI and model, simulating agent movement and viral disease infection.
Agent infectivity was model with opionion dynamics.
Web scraped data to make model reflect real world statistics.
MATLAB, Python, Matplotlib, Pandas

source

HeadtoHead.ca, CMS Subscription Platform   *2019*
Developed full admin and user authentication system along with subscription platform with Stripe API.
Application has been live and running with subscribers for 1.5 years.
Express, React + Redux, MongoDB, Stripe API

private github   live application

CloudTect, Object Detection Model   *2019*
For hackathon, in team of 2 devloped object detection model and web cam streaming server.
Final model detection accuracy of 96%.
Yolo3D, OpenCV, Machine Learning, Flask, React

github

Feedback, Web App   *2017/2018*
To allow my professors to garner feedback more easily, developed anonymous live feedback platform.
Live poll results and graphics, unique code for form that closes after set time period.
Natural language processing on comments, classifying as positive or negative.
Express, React + Redux, MongoDB

github   live application

EDUCATION

Queen's University — Applied Mathematics and Computer Engineering (3.1 GPA)   2017 - 2022 (internship)

Engineering Society Software Development Team — Sub Team Lead
Sexual Assault Center of Kingston — Android App (class project)
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.