Alex Foley

✉ foleyfactor98@gmail.com   ⌂ foleyfactor.github.io   github.com/foleyfactor   in linkedin.com/in/alex-foley

Experience

Google - Gmail Dynamic Email
Waterloo, Ontario
SOFTWARE ENGINEERING INTERN
May 2019 - August 2019

- Designed and built WebDriver tests and monitoring for Docs' dynamic emails, catching two major regressions before production
- Added internal logging and monitoring to triage AMP validation failures **affecting over 500000 emails**
- Designed and built a tool to help developers debug dynamic email issues affecting 15% of all dynamic emails, improving developer experience and cutting down previously manual outreach

Microsoft - Teams
Redmond, Washington
SOFTWARE ENGINEERING INTERN
August 2018 - December 2018

- Built-out new communications architecture to support multi-window capabilities in Teams, **decreasing bytes over wire by 92%**
- Wrote GraphQL resolvers in TypeScript to handle requests routed through the new architecture
- Designed and built-out flighting solution for new architecture, allowing requests to be routed through new and old communication paths with high configurability

Wish - Tracking
San Francisco, California
SOFTWARE ENGINEERING INTERN
January 2018 - April 2018

- Created Python crons and internal tools to automate merchant notification processes, **increasing the number of trackable packages on Wish by 10%**
- Cut running time for tracking crons **from 4 hours to 45 minutes** by optimizing them to run in parallel
- Integrated new tracking source into Wish platform, cutting tracking costs by **up to 80% per package**
- Won internal 13-hour hackathon by **automating the approval of 36% of tracking disputes**, cutting the cost of manual labour

Yahoo! - Fantasy Sports
Sunnyvale, California
SOFTWARE ENGINEERING INTERN
May 2017 - August 2017

- Designed and implemented new notification types on distributed Apache Storm infrastructure to drive users back into Yahoo apps
- Improved notification suite by **architecting a user-based method for processing and sending notifications**, eliminating duplicates that would result from the existing team-based method
- Wrote Python script to reduce a complex build process down to a single command, **saving the team 2.5 hours daily**

Projects

Sandwich-o-matic
Peterborough, Ontario
ECHACKS 2016 - BEST HARDWARE HACK

- Created an automated **IOT sandwich-maker with voice control**, in 36 hours
- Users could say "make me a sandwich with [toppings]" and the machine toasted the bread, dispensed the toppings, and made the requested sandwich
- Created the embedded software (Photon and Arduino) to process requests and facilitate all of the servo/motor movements to create the sandwich
- Featured by **Arduino**, **Gadgetify**, and **Hackaday**

Skills

- Proficient in **Python**, **Java**, **C++**, **JavaScript**, **Scheme**, **Agda**, **HTML/CSS**, **SQL**
- Experience with **Android**, **Apache Storm**, **Arduino**, **Docker**, **Firebase**, **MongoDB**, **Photon**

Education

University of Waterloo
Waterloo, Ontario
BACHELOR OF COMPUTER SCIENCE (CO-OP)
2016 - 2021

Awards/Achievements

2017, 2019	**1st/15 Teams**, Google Games Waterloo	Waterloo, Ontario
2017	**4th/30 Teams**, Bloomberg Code B AI Challenge	Waterloo, Ontario
2016-2020	**Member**, University of Waterloo Table Tennis Team	Waterloo, Ontario
2016	**Recipient**, University of Waterloo Faculty of Mathematics Entrance Scholarship	Waterloo, Ontario