Software Engineering | University of Waterloo | github.com/JamesHageman

### **SUMMARY OF QUALIFICATIONS**

- Production/infrastructure engineering: system deployment, automation, monitoring, root-cause analysis
- Backend application development: web services, API integration, databases, migrations, test pipelines
- Frontend web development: JavaScript, React, Redux, server-side rendering, test-driven development

#### PROFESSIONAL EXPERIENCE

#### Apple Maps Infrastructure Engineering Intern, Sunnyvale CA

Summer 2018

- Migrated CI infrastructure from static hardware assignment to dynamic process scheduling: automating node configuration, increasing utilization, and permitting runs in multiple datacenters for high availability
- Consolidated Jenkins and service log delivery into Splunk and blob storage, simplifying root cause analysis
- Major refactoring of monolithic Python codebase, implementing code review, bug tracking, and tests

#### Shopify Production Engineering Intern, Waterloo ON

Fall 2017

- Implemented DNS-based failover for ElasticSearch clusters, reducing incident response time to 5 minutes
- Refactored ElasticSearch indexing to be interruptible and resilient, unblocking our product teams
- Architected a zero downtime ElasticSearch version upgrade using multiple clusters and CI pipelines
- Built a safe topic deletion mechanism for Kafka, allowing teams to iterate without risking data loss

#### Shopify Developer Intern, Waterloo ON

Winter 2017

- Shipped merchant-facing error reporting for Shopify Scripts using Ruby, Kafka, Sentry, and React, increasing merchant trust and decreasing support load from broken scripts
- Streamlined customer migrations to Shopify Plus by developing the Bulk Account Inviter app
- Deployed and monitored new production services with Kubernetes, CI, and Datadog

# Rangle.io JavaScript Developer Co-op, Toronto ON

Summer 2016

- Developed multiple frontend features of aldoshoes.com using React, Redux, Redux-Saga, Ramda
- Increased SEO and time-to-interaction by rendering the React app on the server side in Node.js
- Synchronized between 5 remote teams in an agile process delivering working software every week
- Reduced bugs by maintaining 80% unit test coverage with Mocha, Enzyme and CircleCI

### Innovasium Digital Web Developer, Markham ON

Summers 2012 - 2015

- Migrated legacy CMS platform to Docker using AWS ECS for deployment and CircleCI for automation
- Facilitated multiple onboarding sessions teaching React, Redux and Ruby on Rails to new co-op students
- Built multiple web applications with technologies including PHP, Node.js, React, Angular, SQL, Adobe Flex

# **EDUCATION**

# Candidate for Bachelor of Software Engineering - University of Waterloo

2015 - 2020

- President's Scholarship of Distinction for entrance average above 95%
- Dean's Honour List and the top decile in 1A

## **PROGRAMMING SKILLS**

Languages: Ruby, Python, JavaScript, SQL, Bash, PHP, Elm, Haskell, Go, Java, C++, HTML, CSS

Technologies: Docker, Rails, React, ElasticSearch, Kafka, AWS, Kubernetes, Datadog, Splunk, Sentry, Chef, Jenkins

### **INTERESTS**

- Performing music: jazz/blues guitar, vocals, piano
- Personal finance: budgeting, investing, and forecasting