


Wesley Kerfoot


Links


 GitHub

 LinkedIn

Contact Information

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Bio

I have over a decade of experience in software development, including full stack and web development, DevOps, and teaching. Through my experience working on critical financial and healthcare related systems, I have gathered experience applying the concepts of DevOps to help ensure stable infrastructure for customers. I have also learned that it is critical that people teach and learn from others, which is why I like working with people who can teach me things, and I in turn am always willing to help others learn more.

Work Experience

Senior Software Developer, ShyftLabs (Feb 2023 - July 2023)

- Created and designed Terraform code to automate the deployment of an entire application running on AWS. I also wrote documentation such that it could be easily handed over to a new DevOps team.
- Spearheaded the implementation of frontend UI automation tests (Playwright) and unit testing in Python using pytest.
- Worked on the backend (Python, Postgres) and frontend (JS, React) of enterprise e-commerce software designed to manage product prices for a large retail company.
- Skills: *React, Linux, Python, PostgreSQL, TypeScript, JavaScript, Terraform, AWS, AWS ECS, Git, Playwright*

Senior Software Developer, Knox Custody (Feb 2020 - Feb 2023)

- Updated core components of a cryptocurrency custody system to use a new protocol version of Bitcoin (Segregated Witness), as well as making improvements to the test suite, and also did extensive work on an Electron based frontend for end-users in TypeScript/React.
- Developed an automated system for calculating and managing customer billing, which involved meeting requirements set by accounting, and generating monthly reports.
- Improved automated testing and build system reliability and speed. The entire system runs in a k8s cluster launched from Gitlab CI, and uses containers built with buildah.
- Worked on the Postgres database which we used as the backend to manage the entire system (writing custom views, and using PL/pgSQL).
- Ported C code to JavaScript to use the yubikey personal identity verification API
- Skills: *Redux.js, Docker, Linux, Python, C, PostgreSQL, React, TypeScript, Racket, Kubernetes*

Software Developer, MedStack (Sep 2017 - Feb 2020)

- Created automated and repeatable server deployments in ansible and terraform that comply with healthcare privacy regulations (e.g. HIPAA)
- Helped build a PaaS tool and monitoring infrastructure to monitor customer server availability and integrity using Python, Ruby, and Elasticsearch
- Wrote code to automate and organize the collection of infrastructure information using AWS and Azure APIs, leading to the company becoming HITRUST compliant
- Skills: *AWS, Azure, Docker, Terraform, Linux, Python, Elasticsearch, docker containers, Ruby, ansible*

Web Developer, Canada Coaster Inc. (Aug 2016 - Aug 2017)

- Created from scratch, the search API backend for a large e-commerce prototype, using Python and Elasticsearch.
- Automated and managed application deployment and testing using ansible on Google Compute Engine
- Set up the team's internal code repository and worked on the company's order system
- Skills: *Linux, Python, Elasticsearch, Linux System Administration, Vue.js, PHP, Git, MySQL*

Software Developer, Eatable (Oct 2015 - Sep 2016)

- Co-founded a company accepted into The Forge, a Hamilton startup incubator
- Developed a minimum-viable product and enabled further development of a mobile recipe search platform using React Native and Elasticsearch
- Built a prototype API backend in Haskell to serve the frontend mobile app
- Skills: *Linux, Elasticsearch, Haskell, React Native, Protocol Buffers, Android*

Working Group Co-Founder, OPIRG McMaster (Sep 2015 - Apr 2016)

- Ran a non-profit working group with the Ontario Public Interest Research Group to promote Open Educational Resources
- Created a search engine using Python and Elasticsearch to index courses at the university and match them with cheaper books from Open Library
- Skills: *Python, Elasticsearch, Flask, Riot.js, WordPress*

Research and Teaching Assistant, McMaster University (May 2014 - Dec 2014))

- Worked on a research project with Dr. Christopher Anand and another student to create an automated algebra system for simplifying expressions with applications in MRI image analysis and optimization
- Developed a term-rewriting system using the Knuth-Bendix algorithm for simplifying math expressions
- More information can be found in this Google tech talk regarding the overall system: <https://youtu.be/yHd0u6zuWdw>
- Worked with students in labs to help them complete assignments and understand problems, and graded assignments exams.
- Course outline available at <http://www.cas.mcmaster.ca/~anand/CS1JC32014.html>
- Skills: *Haskell, Research, Algorithm Design, Computer Science*

Full Stack Developer, Monstercat (Jun 2013 - Sep 2013)

- Created a prototype for a web-based crowdfunding tool and the back-end on WordPress and MySQL
- Designed and implemented a content aggregator in Haskell to download event information from various APIs, and populate it using the Wordpress XML-RPC endpoints.
- Built a mass emailing tool in Python to notify users of upcoming concerts, using the sendgrid API.
- Skills: *Linux, Python, JavaScript, Haskell, MySQL, PHP*

Education

- McMaster University - Hamilton, ON – *Honours Bachelors, Philosophy*: Sep 2012 - Jun 2016