

# Wesley Kerfoot

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## Links


 GitHub

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## Contact Information

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## Bio

My primary experience is in software engineering and research, including full stack and web development, as well as teaching and organizing. I am currently employed as a software developer in the financial custody industry. As a software developer, I'd like to leverage my experience and skills in backend development, embedded systems and electronics to build something new and innovative.

## Work Experience

### Senior Software Developer, Knox Custody (Feb 2020 - Present)

- Developed various components of a cryptocurrency custody system, including a Bitcoin transaction system, a frontend tool for end-users to manage their wallets, and automated testing and build systems. The entire system runs in a k8s cluster.
- Worked on the Postgres database, creating custom functions and views for the API
- Developed an automated system for calculating and managing customer billing, in Python.
- Ported C code to JavaScript to use the yubikey personal identity verification API
- Worked on the frontend application in TypeScript with React and Redux.
- Skills: *Redux.js, Software Development, Docker, Linux, Python, C, PostgreSQL, React.js, 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: *Software Development, AWS, Azure, Docker, Terraform, Linux, Python, Elasticsearch, docker containers, Ruby, ansible*

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

- Worked on the search backend (Python, Elasticsearch) for a large e-commerce prototype
- 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: *Software Development, 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: *Software Development, 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: *Software Development, 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: *Software Development, 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: *Software Development, Linux, Python, JavaScript, Haskell, MySQL, PHP*

## **Education**

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