Adam Richardson

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~$ Experience

Coinbase - Software Engineer on Merchant Platform, Security September 2017 – Present

- Built the React-based frontend dashboard for a greenfield e-commerce platform
- Developed low-level payments infrastructure for Bitcoin, Ethereum, Bitcoin Cash, and Litecoin, allowing online merchants anywhere to accept cryptocurrency as payment
- Wrote a novel publish-subscribe mechanism for processing pending transactions, reducing time to detection of Bitcoin payments by a factor of 10

Stripe - Engineering Intern on Storage January – April 2017

- Lead a mission-critical resharding operation, deploying hundreds of MongoDB servers and migrating hundreds of terabytes of customer data through a live production system
- Built a custom MapReduce pipeline to calculate database storage density across key ranges with a novel dynamic programming algorithm, enabling perfectly optimal shard splits

Shopify - Software Developer Intern on Infrastructure January – August 2016

- Designed, implemented, and deployed a caching layer for NGINX software load balancers, processing tens of thousands of requests per second and mitigating denial of service attacks
- Developed large-scale distributed HTTP load testing software, capable of generating hundreds of thousands of requests per second, used for resiliency testing of the entire Shopify platform

~$ Projects

- **raycast** (Javascript, 3D rendering): proof-of-concept raycaster 3D engine, rendering a first-person view of a randomly-generated maze word
- **es6-connect4** (Javascript): multiplayer clone of connect4
- **goword** (Go, Javascript, HTML5): a multiplayer in-browser clone of the Boggle word game

~$ Education

- **University of Waterloo**, Candidate for Honours Bachelor of Computer Science, class of 2019

~$ Certifications and Accolades

- Successfully completed the Coursera Deep Learning specialization, a 16-week-long intensive curriculum in deep learning, with perfect marks
- Member of the University of Waterloo's 2017 ACM-ICPC regionals team