

Anna Lorimer

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SKILLS

C, C++, Python, Git, Unix Command Line, ElasticSearch, AWS, Chef, MIPS Assembly, Bash Scripting, MySQL

EXPERIENCE

Undergraduate Research Assistant, University of Waterloo Cryptography, Security, and Privacy Lab

Supervised by Professor Ian Goldberg, 2017 – Present

- Collaborated with lab members through weekly meetings to implement Slitheen, a anti-censorship decoy-routing system
- Improved the usability by adding Slitheen functionality to FireFox through modifying the FireFox package and creating a Debian package
- Used Python and Selenium to write a decoy data generator by automating web browsing to mimic normal web browsing resulting in resistance to browser fingerprinting

Cofounder, Speaker & CFP Coordinator, StarCon, 2017 – Present

- Co-founded a single-track, lightning talk conference to give speakers a platform to share their interest and passion for technology in a way that inspires others to do the same
- Booked two keynote speakers and coordinated their travel arrangements
- Created the CFP process and led a Program Committee to ensure quality of conference content

Software Developer (DevOps), Arctic Wolf Networks, 2017

- Implemented alerting for EC2 instances using the AWS API and Nagios to prevent development environment failures such caused by instance retirement
- Designed and built IT monitoring systems using the Python Threading Library, Nagios CGI and ElasticSearch to facilitate monitoring of internal services
- Implemented infrastructure rules using Chef to automate new IT infrastructure features
- Wrote services to execute commands on devices via DNS Spoofing to enable remote work on client networks
- Created system and integration tests using Lettuce to expand unit testing for new features

Junior Software Developer, IBI Intelligent Systems, 2016

- Developed multi-threaded software to schedule and distribute work across multiple servers which increased throughput
- Implemented the publish/subscribe pattern over an enterprise bus to collect data from microwave radar detectors to adjust speed signs on roads using the C# Task Parallel Library and the Async/Await pattern to implement the to improve performance
- Created new AngularJS web application with TypeScript to replace a desktop version of client-side software which reduced user frustration

Software Developer, Audiobooks.com, 2015

- Implemented new features written in PHP, JavaScript and JQuery for the Audiobooks.com web application to improve user experience
- Optimized extraction from a MySQL database by retrieving only the necessary data and rewriting queries to improve the efficiency internal tooling

Software Quality Assurance Tester, Dejero Inc, 2015

- Project lead for NewsBook Mac (OSX Application) testing
- Performed system, unit, regression, load and function tests on Windows Embedded, iOS, OSX and Web Applications to improve user experience
- Isolated complex software and hardware bugs to improve product quality

Mentor, Secretary, Office Manager, Women in Computer Science Undergraduate Committee, 2015 – 2017

- Mentored incoming committee members in event planning, working with sponsors and diversity initiatives in weekly meetings
- Spearheaded efforts to encourage students to work in Computer Security by running Capture the Flag competitions
- Managed a team of nine people to run weekly academic and social events such as workshops and discussion groups

EDUCATION

Bachelor's Joint Honours Computer Science and Combinatorics & Optimization

INVITED TALKS & WORKSHOPS

Who are Alice and Bob? Introduction to Security, Hack the North, September 2017

Pop and (B)Lock(chain), Communitelch Technical Chats for Women in technology P2P, April 2017

CodeLikeAGirl Scratch Workshop, Oakville Public Library, February 2017

WiCS Co-op Panel, University of Waterloo, January 2016, January 2017

WiCS Orientation: What's the Deal with Co-op?, University of Waterloo, September 2016, September 2017

Introduction to Git and Open Source Software, University of Waterloo, March 2016

VOLUNTEERING

WiCS Capture The Flag, University of Waterloo, November 2016, February 2017, July 2017

Open House Women in Computer Science Panel, University of Waterloo, January 2017

PROJECTS

WLP4 Compiler

- Implemented lexical, syntactic and semantic code analysis as well as binary code generation in C++

WiCS Website, <https://github.com/wics-uw/website>

- Contributed to the WiCS Website open source project using Git, Pelican and Markdown once a week
- Reviewed Pull Requests to mentor new contributors and improve the quality of content

BUILDING BUYER 7000

- Implemented a Unix terminal Monopoly-esque game in C++ using Decorator, Singleton, and Factory patterns