Nicholas **Shields**

Computer Engineering · 2B

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Summary

- Effectively able to work with various high level programming languages such as Ruby, Python and Java.
- Working knowledge of web development using Ruby on Rails, HTML, CSS, JavaScript and the LAMP stack.
- Informed understanding of team based software development practices.
- Effective communication skills enhanced through working alongside a team of other developers.
- Proficient in numerous operating systems including Linux, Mac OS and Windows.

Skills

Development: Ruby, Python, Java, C++, Swift, LAMP stack, JavaScript, HTML, CSS, XML, XSLT, JSON
Tools: Docker, Rails, Sinatra, Git, Teamcity, Sensu, Chef, Jira, Confluence, Eclipse, Xcode, MySQL, Oracle VM Manager

Work Experience

Oracle   *Toronto, ON*
DevOps Intern   *May. 2017 - Aug. 2017*

- Worked on several infrastructure balancing projects that improved fault tolerance in the cloud.
- Assisted in the development of a Slackbot written in Node.js that answered developer questions and gave metrics on cloud infrastructure.
- Created and maintained Teamcity projects which automated various tasks, helping to improve overall development efficiency.
- Developed and improved upon existing monitoring infrastructure by leveraging Ruby, Chef and Sensu.
- Contributed to an in-house Sinatra web-application that served as a resource for enhancing self sufficiency in the organization.

Evertz Microsystems   *Burlington, ON*
Student Project Engineer   *Sept. 2016 - Dec. 2016*

- Configured and maintained Media Asset Management and automation systems for broadcasting companies such as NBC and Globecast.
- Corrected database discrepancies by implementing JavaScript and Python scripts, utilizing in-house software APIs.
- Commissioned proprietary software for NBC by remotely configuring Linux server environments with Evertz Software.

Evertz Microsystems   *Burlington, ON*
Student Design Engineer   *Jan. 2016 - Apr. 2016*

- Developed device drivers used to interface between Evertz software and physical devices for AV applications using Python and Twisted.
- Practiced proper testing procedures and became familiar with development and team tracking software (Jira, Stash, Confluence, Git, Jenkins).
- Effectively used Linux and shell scripting to improve efficiency throughout various development tasks.

Projects

HomeDash.info
Personal Web-Application

- Developed a Dockerized Rails application that provides metrics and the status of the various devices found in my apartment.
- The application interfaces with various devices, including a wireless router, phillips-hue smart lights, Arduino(via Serial Port), Television and TV Receiver, providing the status of the devices and available interactions.
- Created python scripts managed using cron that periodically provide metrics on internet connection speed.

NodeRemote.me
Personal Web-Application

- Utilized an Arduino configured with an IR LED and receiver to effectively send and capture IR commands to and from IR compatible devices.
- Deployed a Node.js application onto a Raspberry Pi and developed a simple web remote design using HTML, CSS, Bootstrap and jQuery.
- Interfaced the Pi with the Arduino via Serial to effectively use the node application to send IR commands to the configured devices.

PhoneRevival.net
Personal Business

- Developed an ecommerce website using HTML, CSS, JavaScript and a WordPress managed backend.
- Negotiated with foreign manufacturers to reduce customer shipping times, leading to increased profits.

Education

University of Waterloo   *Waterloo, ON*
Candidate for Bachelor of Applied Science, Computer Engineering   *Sept. 2015 - Present*

- **Relevant Courses:** Embedded Microprocessor Systems, Operating Systems, Algorithms and Data Structures(C++), Engineering Design with Embedded Systems(Java, Android), Digital Computers