

Harrison Totty

DEVOPS ENGINEER · SOFTWARE DEVELOPER

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Summary

Current lead DevOps Engineer for the various Wolfram Cloud environments. Extensive software development experience since a very early age. Almost entirely self-taught and quick to learn new technologies.

Work Experience

Wolfram Research, Inc.

Champaign, IL

DEVOPS ENGINEER

Apr 2018 - Present

- Developed/Implemented configuration management and remote execution frameworks for the various Wolfram Cloud environments.
- Personally architected software platforms, individual servers, machine clusters, and deployment workflows.
- Provided routine performance and security analysis.
- Improved deployment processes for Wolfram Cloud.

WEB SYSTEMS ADMINISTRATOR

Dec 2016 - Apr 2018

- Provided general systems administration for various Wolfram web products and services.
- Designed & built DEV/TEST environments for Wolfram Cloud.
- Developed backend code for the Wolfram Cloud Platform in Java.

WEB SYSTEMS INTERN

Sep 2016 - Dec 2016

- Developed systems utilities to aid common operations tasks.
- Implemented new Wolfram kernel features in C.
- Ported many internal components to containerized environments.

Sample Projects

Remote Execution Framework

Personal

AN EASY REMOTE COMMAND EXECUTION UTILITY

Nov 2018 - Apr 2019

- Written in Python3 as a lightweight alternative to frameworks such as Fabric or Ansible.
- Automatically formats output depending on whether a TTY is present.
- Capable of running both arbitrary commands and pre-defined tasks.
- Includes interactive console mode.

mkconf

Wolfram Research, Inc.

APACHE WEB SERVER CONFIGURATION TEMPLATE ENGINE

Aug 2018 - Sep 2018

- Written in Python3.
- Generates Apache Web server configurations from Jinja templates and YAML configuration files.
- Replaced older in-house utility written in Perl.
- Validates directives after generating configurations.
- Capable of reverting changes.

Education

Tallahassee Community College

Tallahassee, FL

ASSOCIATES OF SCIENCE

Jan 2015 - Jan 2016

- Graduated honors with 4.0 GPA.