

Harrison Totty

DEVOPS ENGINEER · SOFTWARE PROGRAMMER

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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

- Architected Kubernetes clusters and supporting deployment pipelines for Wolfram Alpha.
- 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.

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

CV & Resume

Personal Project

(THIS DOCUMENT)

May 2019 -

- Built from Jinja2-templated LaTeX documents via "tmpl".
- Raw data present in YAML format.

tmpl

Personal Project

A GENERAL-PURPOSE TEMPLATING SYSTEM

May 2019 - Jun 2019

- A general-purpose Jinja2/YAML templating system based on "mkconf" and "mkdot".
- Utilized in the generation of this CV/Resume.
- Supports runtime-loaded Python extensions to the templating system.
- Capable of handling raw Jinja2 content piped directly to STDIN.

Remote Execution Framework

Personal Project

AN EASY REMOTE COMMAND EXECUTION UTILITY

Nov 2018 - Apr 2019

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

Education

Tallahassee Community College

Tallahassee, FL

ASSOCIATES OF SCIENCE

Jan 2015 - Jan 2016

- Graduated honors with 4.0 GPA.