Harrison **Totty**

DEVOPS ENGINEER · SOFTWARE PROGRAMMER
1307 West University Ave, Champaign IL 61821

 (850) 461-8381 | harrisongtotty@gmail.com | harrisontotty.github.io | HarrisonTotty | harrisont

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.
- Developed/Implemented configuration management and remote execution frameworks.
- 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

Personal Finance Analytics Platform   *Personal Project*

A PYTHON LIBRARY FOR CATEGORIZING AND ANALYZING BANK TRANSACTIONS   *Mar 2020 -*

- Categorizes transactions based on a home-made library of regular expressions.
- Leverages sklearn to perform predictive regression on financial trends.
- Provides a wrapper around plotly for graphical analysis.

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.