

Harrison G. Totty

DEVOPS ENGINEER · SOFTWARE PROGRAMMER

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Education

Tallahassee Community College

ASSOCIATES OF SCIENCE

- Graduated honors with 4.0 GPA.

Tallahassee, FL

Jan 2015 - Jan 2016

University of West Florida

PHYSICS

Pensacola, FL

Aug 2011 - Jul 2014

Skills

CI/CD	Jenkins Pipelines (Declarative & Scripted Syntax)
Configuration Management	Puppet, Salt
Configuration/Data Languages	JSON, TOML, YAML
Container Runtimes & Orchestration	Docker, Helm, Kubernetes
Data Science	Jupyter Lab/Notebooks, Mathematica, matplotlib, sympy
GNU/Linux Distributions	Arch Linux, Gentoo, Debian (Ubuntu), RHEL (CentOS), Void Linux
High Availability	HAProxy, keepalived
Human Languages	English (Native), German (Beginner)
Markup Languages	LaTeX, Markdown, Org
Programming Languages	C/C++, C#, Emacs Lisp, Groovy (Jenkins Pipelines), Perl, Python, Rust, Shell Languages, Wolfram (Mathematica)
Project Management	GitHub Issues/Projects, GitLab Issues, JIRA
Repository Hosting	Bitbucket, GitHub, GitLab
Secrets Management	Hashicorp Vault
Templating Languages	Liquid, Jinja, Puppet
Text Editors	GNU Emacs, Vim
Version Control Systems	cvs, git
Web Servers	Apache Tomcat, Apache Web Server

Work Experience

Wolfram Research, Inc.

DEVOPS ENGINEER

Champaign, IL

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.

Tallahassee Community College

MATHEMATICS AND TECHNOLOGY TUTOR

Tallahassee, FL

May 2016 - Aug 2016

- Provided tutoring and support to students in various mathematics and technology topics.

Wolfram Research, Inc.

WOLFRAM SUMMER SCHOOL STUDENT

Boston, MA

Jan 2013 - Feb 2013

- Invited to Bentley University for three weeks to conduct research on various machine learning analogues.

Radio Shack

SALES ASSOCIATE

- Provided customer service and support for a variety of mobile devices, DIY components, and more.

Pensacola, FL

Jul 2013 - Mar 2015

University of West Florida

STUDENT SSE SYSTEM ADMINISTRATOR

- Provided general systems administration for the faculty of the School of Science and Engineering.

Pensacola, FL

Jan 2014 - Aug 2014

RESNET TECHNICIAN

- Supported the technical needs of dorm students.

Feb 2012 - Aug 2013

Projects

CV & Resume

(THIS DOCUMENT)

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

Personal Project

May 2019 -

tmpl

A GENERAL-PURPOSE TEMPLATING SYSTEM

- 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.

Personal Project

May 2019 - Jun 2019

Remote Execution Framework

AN EASY REMOTE COMMAND EXECUTION UTILITY

- 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.

Personal Project

Nov 2018 - Apr 2019

mkdot

THE HANDY DOTFILE TEMPLATING SYSTEM

- Based on "mkconf" project, but specialized for the generation of dotfiles.

Personal Project

Oct 2018 - Dec 2018

mkconf

AN APACHE WEB SERVER CONFIGURATION TEMPLATING ENGINE

- Generates Apache Web Server configurations from Jinja2 templates and YAML configuration files.
- Replaced older in-house utility written in Perl.
- Validates directives after generating configuration files.
- Capable of backing-up previous configurations and reverting changes.

Wolfram Research, Inc.

Aug 2018 - Sep 2018