

# Harrison Totty

DEVOPS ENGINEER · SOFTWARE PROGRAMMER

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## Summary

Current lead DevOps Engineer and systems architect for the Web Systems group at Wolfram Research. High experienced at implementing custom infrastructure solutions within bare-metal/on-premises environments. Thrives in seeking solutions within domains not yet encompassed by popular technologies or industry standards.

## 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.

### Tallahassee Community College

Tallahassee, FL

MATHEMATICS AND TECHNOLOGY TUTOR

May 2016 - Aug 2016

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

### University of West Florida

Pensacola, FL

STUDENT SSE SYSTEM ADMINISTRATOR

Jan 2014 - Aug 2014

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

RESNET TECHNICIAN

Feb 2012 - Aug 2013

- Supported the technical needs of dorm students.

## Skills

### Containers & Orchestration

Docker, Helm, Bare-Metal Kubernetes (k8s & k3s)

### Data Languages

CSV/TSV, INI, JSON/YAML, TOML, XML

### Data Science

Jupyter Lab/Notebooks, Mathematica, matplotlib, plotly, sympy

### IDEs & Text Editors

GitHub Atom, GNU Emacs, nano, Sublime Text, vi/vim, Visual Studio (Code)

### Infrastructure Management

Ansible, Cobbler, Puppet, Salt, Hashicorp Vault, Velero

### LAMP Components

Apache HTTP Server, HAProxy, keepalived, MySQL (Percona XtraDB Cluster), NGINX, Apache Tomcat

### Markup Languages

TeX, Markdown, Org

### Networking Fundamentals

ARP, CIDR, Mikrotik RouterOS, TCP/IP & OSI Model, Ubiquiti Unify Controller, VLAN

### Operating Systems

Alpine Linux, Arch Linux, Debian (Ubuntu), Gentoo, RHEL (CentOS), Void Linux, Microsoft Windows

### Programming Languages

C/C++, C#.NET, Emacs Lisp, groovy, Perl, Python, Rust, Shell Languages

### Software Engineering

Bitbucket, git, GitHub, GitLab, Jenkins, JIRA

### Systems Administration

chronyd/ntpd, DNS (BIND/Unbound), init (SysVinit/systemd), OpenLDAP, postfix, rsyslog, SSSD, ulimits

### Templating Languages

Cheetah, Embedded Ruby, Jinja, Liquid

## Education

### Tallahassee Community College

Tallahassee, FL

ASSOCIATE OF SCIENCE

Jan 2015 - Jan 2016

- Graduated honors with 4.0 GPA.