

# Joshua Haupt

## Resume

1793 Bentwater Lane

O'Fallon, IL

USA

✉ [joshua@hauptj.com](mailto:joshua@hauptj.com)

📄 [hauptj.com](http://hauptj.com)

[github.com/HauptJ](https://github.com/HauptJ)

## Work Experience

2016–2017 **IT Help Desk**, *SIUE*, Edwardsville, IL.

While, demonstrating expertise and professionalism I helped students, faculty and staff by finding solutions to unique IT problems

- Worked with minimal to no supervision in resolution of open ticket action items
- Troubleshoot/resolved software and hardware related tracked concerns within established time-frames

Summer 2015 **National Science Foundation (NSF) Secure Cloud Computing Research Experience Undergraduate (REU)**, *NSF and Missouri S&T*, Rolla, MO, Research Internship.

Studied cloud computing approaches, platforms and trends in depth

- Researched, developed and implemented ways to securely store and process private information on public cloud platforms
- Devised a ranking system to prioritize Cloud Service Providers (CSPs) based on certifications and implemented security features
- Provided enhanced understanding of various cloud computing platforms, the three service models (SaaS, PaaS, and IaaS), and approaches to utilizing public cloud platforms in a secure manner

## Projects

Spring 2018 - **Ansible, Terraform, and OpenStack CLI Docker Container.**

Present Built a Docker container with Ansible, Terraform, and OpenStack CLI

- Published on Docker Hub

January 2018 **Python Git Hook and Integration Testing Project.**

Built a simple python program that demonstrates GIT hooks and automated integration testing

- Utilized Travis CI for integration testing

Fall 2017 - **Automated Website Deployment.**

Present Built an Ansible Playbook and a Terraform script to automatically deploy a WordPress website to DigitalOcean and configure DNS records on CloudFlare

- Utilized Travis CI and Docker for integration testing of Ansible Roles
- Wrote Vagrantfile that utilized custom build Vagrant box for local testing and debugging

2017 **DevOps**, *SIUE*, Edwardsville, IL, Group Senior Capstone Assignment.

Built a toolkit to help students gain an understanding of some of the tools used in a Unix DevOps environment

- Wrote a Vagrantfile and an Ansible Playbook to provision a virtual development environment
- Wrote Dockerfiles to provision Ubuntu Linux containers for Java, Python and C++ Socket programming
- Wrote bash and PowerShell scripts to install Git, VirtualBox, Vagrant and Ansible

Spring 2017 **Mock Email Client and Server**, *SIUE*, Edwardsville, IL, Individual Computer Networking Project.

Built a mock Email client and server

- Utilized TCP, UDP, logging, authentication and external HTTP API calls via CURL
- Utilized SMTP and HTTP status codes and request commands

Fall 2016 **LA Crime Database**, *SIUE*, Edwardsville, IL, Group Database Project.

Built an advanced MariaDB database using crime data published by the city of Los Angeles, California

- Solved configuration problems that arose with CentOS 7, MariaDB, PHP and Nginx

## Relevant Skills

DevOPS	Ansible, Vagrant, Packer, Docker, Terraform, Travis CI	WebDev	NGINX, Redis, PHP, HTML
Programming	C++, Java, Python, Go, Git	Database	MariaDB
Sys. Admin	CentOS, Fedora, Ubuntu, Systemd, Windows	Network	DNS, TCP, UDP, Sockets, ICMP, IPv6, CDN

## Education

2018 **B.S, Computer Science**, *Southern Illinois University Edwardsville*.

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CV

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## Work Experience

2016–2017 **IT Help Desk**, *SIUE*, Edwardsville, IL, Part Time: 15 to 30 hours per week.

While, demonstrating expertise and professionalism I helped students, faculty, and staff by finding solutions to unique IT problems

- **Role:** Student IT help desk and field tech employee

- **Actions:**

- Responsible for effective and rapid resolution of Help Desk Tickets
- Troubleshoot/resolved software and hardware related tracked concerns within established time-frames
- Worked with minimal to no supervision in resolution of open ticket action items

- **Impact:** Faculty members provided accolades to senior supervisory personnel regarding my demonstrated expertise and professionalism

- **Faculty Accolade:** [jnh.bz/faculty\\_acclamation.png](http://jnh.bz/faculty_acclamation.png)

- **References available upon request**

Summer 2015 **National Science Foundation (NSF) Secure Cloud Computing Research Experience Undergraduate (REU)**, *NSF and Missouri S&T*, Rolla, MO, Full Time Research Internship.

Studied cloud computing approaches, platforms and trends in depth

- **Note:** One of ten selected from a national pool of applicants

- **Role:** Research Assistant

- **Actions:**

- Researched, developed and implemented ways to securely store and process private information on public cloud platforms
- Devised a ranking system to prioritize Cloud Service Providers (CSPs) based on certifications and implemented security features
- Showed group members how to use Git

- **Impact:** Provided enhanced understanding of various cloud computing platforms, the three service models (SaaS, PaaS, and IaaS), and approaches to utilizing public cloud platforms in a secure manner

- **Presentation:** [jnh.bz/mst\\_reu\\_ppt.pdf](http://jnh.bz/mst_reu_ppt.pdf)

- **Poster:** [jnh.bz/mst\\_reu\\_poster.pdf](http://jnh.bz/mst_reu_poster.pdf)

- **Reference available upon request**

## Personal Projects

Fall 2017 - **Automated Website Deployment.**

Present Built an Ansible Playbook and a Terraform script to automatically deploy a WordPress website to DigitalOcean and configure DNS records on CloudFlare

- IPv6 only behind CloudFlare
- Redis caching
- Utilized Travis CI and Docker for integration testing of Ansible Roles
- Utilized Ansible Vault to protect sensitive variables
- Wrote Vagrantfile that utilized custom build Vagrant box for local testing and debugging
- Wrote bash scripts to automate repetitive tasks
- **Repository:** [github.com/HauptJ/WordPress-CloudFlare-Terraform](https://github.com/HauptJ/WordPress-CloudFlare-Terraform)

Spring 2018 - **CentOS 7 Vagrant Box.**

Present Built a CentOS 7 Vagrant box using Packer

- Included automatic provisioning with Ansible
- Published to Vagrant Cloud
- Wrote a PowerShell script to automate build and packaging processes
- **Repository:** [github.com/HauptJ/Vagrant-CentOS-7-HyperV-Gen-2](https://github.com/HauptJ/Vagrant-CentOS-7-HyperV-Gen-2)

Spring 2018 - **Ansible, Terraform, and OpenStack CLI Docker Container.**

Present Built a Docker container with Ansible, Terraform, and OpenStack CLI

- Utilized Travis CI and for integration testing
- Published on Docker Hub
- **Repository:** [github.com/HauptJ/Ansible-Docker](https://github.com/HauptJ/Ansible-Docker)

January 2018 **Python Git Hook and Integration Testing Project.**

Built a simple python program that demonstrates GIT hooks and automated integration testing

- Utilized Travis CI for integration testing
- Wrote a separate script to run integration tests and print a report
- **Repository:** [github.com/HauptJ/Value-Cleaner](https://github.com/HauptJ/Value-Cleaner)

Summer 2014 **TCP IP Web Utility Website.**

Personal project in which I build a simple PHP website that provided TCP IP utilities such as user IP and user agent ping, traceroute, port scan, and nslookup

- Configured a DigitalOcean cloud server with the LEMP stack
- Configured DNS records
- Originally published on Google Code
- **Repository:** [github.com/HauptJ/ip-tools](https://github.com/HauptJ/ip-tools)

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## Academic Projects

2017 **DevOps, SIUE, Edwardsville, IL, Group Senior Capstone Assignment.**

Built a toolkit to help students gain an understanding of some of the tools used in a Unix DevOps environment

- **Note:** Client was an employee of AT&T
- **Role:** Linux Expert
- **Actions:**
  - Wrote a Vagrantfile and an Ansible Playbook to provision a virtual development environment
  - Wrote Dockerfiles to provision Ubuntu Linux containers for Java, Python and C++ Socket programming
  - Wrote Travis CI test cases for CI testing
  - Wrote bash and PowerShell scripts to install Git, VirtualBox, Vagrant and Ansible
- **Impact:** Helped create a fully functional end product that met all of the clients expectations
- **Repository:** [github.com/SIUE-DevOps](https://github.com/SIUE-DevOps)

Spring 2017 **Mock Email Client and Server, SIUE, Edwardsville, IL, Individual Computer Networking Project.**

Build a mock Email client and server

- Utilized TCP, UDP, logging, authentication and external HTTP API calls via CURL
- Utilized SMTP and HTTP status codes and request commands
- Created a simple PHP based HTTP API to assist with encoding and decoding passwords
- **Repository:** [github.com/HauptJ/UDT-Mail-Server](https://github.com/HauptJ/UDT-Mail-Server)

Fall 2016 **LA Crime Database, SIUE, Edwardsville, IL, Group Database Project.**

Built an advanced MariaDB database using crime data published by the city of Los Angeles, California

- **Role:** Linux Server Expert
- **Actions:**
  - Designed an advanced database using crime data from Los Angeles, California
  - Set up a MariaDB database on a CentOS 7 cloud server
  - Took frequent database backups
  - Solved configuration problems that arose with CentOS 7, MariaDB, PHP and Nginx
  - Created a simple web interface that utilized advanced queries
  - Helped a group member resolve technical problems that made impeded him from accomplishing tasks
- **Impact:** Helped create a fully functional end product that met all graduate level specifications
- **Repository:** [github.com/HauptJ/SIUE-CS-434-Advanced-Databases-Fall-2016](https://github.com/HauptJ/SIUE-CS-434-Advanced-Databases-Fall-2016)

Fall 2016 **CS AP Test Study Web App, SIUE, Edwardsville, IL, Group Human Computer Interaction Project.**

Built a PHP web application to help students study for the Computer Science AP test

- **Roles:** Git Expert, Linux Server Expert
- **Actions:**
  - Recommended web services such as Github and Office 365 to assist with collaboration
  - Set up an Infinoted server hosted on an AWS cloud server to enable pair programming
  - Created a PHP web application hosted on an OVH cloud server
  - Thoroughly documented design and planning after performing requirement analysis
  - Performed usability testing
  - Created Flow, Cultural, Sequence, Artifact, Physical, and Affinity Diagram work models
  - Created Low and High Fidelity prototypes
  - Presented the project to the class at the end of the semester
- **Presentation:** [jnh.bz/hci\\_proj\\_ppt.pdf](https://jnh.bz/hci_proj_ppt.pdf)

- Fall 2015 **Animal Rescue App**, *SIUE*, Edwardsville, IL, Group Software Engineering Project.  
 Built a C# desktop application to keep track of inventory at an Animal rescue organization
- **Roles:** Git Expert, Unit Test Developer
  - **Actions:**
    - Recommended web services such as Office 365 to assist with collaboration
    - Thoroughly documented design and planning after performing requirement analysis
    - Created design diagrams such as use cases, UML, DCD, Sequence, and ER
    - Presented the project to the class at the end of the semester
  - **Presentation:** [jnh.bz/swe\\_proj\\_ppt.pdf](http://jnh.bz/swe_proj_ppt.pdf)

- Spring 2015 **File Deduplication**, *SIUE*, Edwardsville, IL, Group Research Project.  
 Research project involving file deduplication
- **Role:** Research Assistant and Linux Expert
  - **Actions:**
    - Translated a Java library to C
    - Encouraged good code documentation practices
    - Set up an Infinoted server hosted on a DigitalOcean cloud server to enable pair programming
  - **Impact:** Helped create a functional product that met the professors expectations
  - **Reference available upon request**

## Working Knowledge

DevOPS	Ansible, Vagrant, Packer, Docker, Terraform	WebDev	NGINX, Redis, PHP, HTML
Programming	C++, Java, Python, Go	Database	MariaDB
IaaS Cloud	DigitalOcean, OpenStack	SaaS Cloud	Google Apps / GSuite
Testing	Unit Testing, Integration Testing	CI	Travis CI
Sys. Admin	CentOS, Fedora, Ubuntu, Systemd, Windows	Network	DNS, TCP, UDP, Sockets, ICMP, IPv6, CDN

## Basic Knowledge

DevOPS	Chef, KitchenCI, AppVeyor	Programming	CSharp, Javascript, CSS
Paas Cloud	Google App Engine	IaaS Cloud	AWS
Sys. Admin	Powershell, JumpCloud	Documentation	LaTeX
Image Editing	GIMP, Greenshot	Video Editing	FFmpeg, Openshot

## Interests

Group Programming	Working with a group to complete programming projects
Self Improvement Programming	Creating simple projects to learn new programming languages, technologies, and skills
Linux Sys-Admin	Wrote a Terraform script to deploy and provision, using Ansible, a cloud server running CentOS to run a personal website
Net Admin	Set up a router running OpenWRT with tunneled IPv6 and an additional wireless AP for a home network

## Extracurricular Activities

- **Co-founder** - SIUE Distributed Computing Club
- Computer Association of SIUE (CAOS)
- **HS**, CyberPatriot cybersecurity program

## Languages

English	Native	
German	Conversational Skill level	<i>Can carry out a basic conversation</i>

## Honors

- School of Engineering Deans List
- Awarded Logistics Officer Association Scholarship - 2013

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## Education

2018 **B.S, Computer Science**, *Southern Illinois University Edwardsville.*

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## Volunteer Activities

Fall 2014 - **Stocker**, *DECA*, Scott AFB, IL.

Spring 2015 Stocked shelves at night at the commissary on Scott AFB