

# Joshua Haupt

CV

✉ [joshua@hauptj.com](mailto:joshua@hauptj.com)  
📄 [hauptj.com](http://hauptj.com)  
US Citizen

---

## Education and Extracurricular Activities

May 2018 **B.S, Computer Science with Math Minor**, *Southern Illinois University Edwardsville*.

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

---

## Work Experience

2018–Present **DevOps Full Stack Engineer**, *CenturyLink through Apex Systems*, St. Louis, MO, Contract.

Contributes to the development of the CenturyLink cloud platform

- **Role:** DevOps Full Stack Software Engineer
- **Actions:**
  - Contributed to the development of the monitoring component of the Cloud Application Manager - Managed Services Anywhere project
  - Engaged in all aspects of the development life cycle from design to coding, testing and deployment, to production support
  - Recommended practices to protect API tokens and prevent accidental modification of production services
  - Contributed in agile planning and design sessions
  - Performed through code reviews and provided feedback for improvement
  - Evaluated and recommended technologies that were incorporated into the product and development stacks
  - Mentored and helped new team members
- **Impact:** Developed a Sensu based cloud monitoring appliance for deployment in a customer's private network
- **Technologies used:** Kubernetes, Helm, Docker, Ansible, Packer, Terraform, PostgreSQL, OpenResty, Jenkins, CentOS, Ubuntu, AWS, GitHub, Ruby, and Node.JS
- **Reference available upon request**

2016–2017 **IT**, *SIUE*, Edwardsville, IL, Part Time.

Demonstrated expertise and professionalism when assisting students, faculty, and staff by finding solutions to unique problems

- **Role:** Student IT 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 **Intern Research Assistant and Software Developer**, *NSF and Missouri S&T*, Rolla, MO, National Science Foundation Secure Cloud Computing Research Experience Undergraduate.

Studied cloud computing approaches, platforms and trends in depth

- **Note:** One of ten selected from a national pool of applicants
- **Role:** Research Assistant and Software Developer
- **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
  - Trained 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

- September 2018 **GitHub Golang REST API.**  
Developed a Golang REST API to interface with GitHub's API
- Returns a nested list of followers for a specified user in JSON
  - Returns a nested list of a user's repositories and stargazers for each repository in JSON
  - Packaged in an easy to build and deploy Docker container
  - Reads in a GitHub API token as an environment variable
  - Deployed the container on a publicly accessible cloud server
  - **Repository:** [github.com/HauptJ/Golang-API-Github](https://github.com/HauptJ/Golang-API-Github)
  - **Demo:** [docker.hauptj.com:8880/followers/hauptj](https://docker.hauptj.com:8880/followers/hauptj)
- Summer 2018 **CLI Golang Application Tracker and Cover Letter Utility.**  
- Present Developed a CLI Golang Application Tracker and Cover Letter Generator
- Builds custom cover letters using a LaTeX template
  - Utilizes Travis CI and for integration testing
  - Uploads CV to a public Google Cloud Storage bucket
  - Utilizes SMTP to send cover letters and resumes via Email
  - Wrote Dockerfile and Docker Compose file to deploy the external API
  - Logs applications to an external MongoDB database as well as a local CSV file
  - **Repository:** [github.com/HauptJ/Golang-Cover](https://github.com/HauptJ/Golang-Cover)
- Fall 2017 - **Automated Website Deployment.**  
Present Wrote 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
  - Utilizes Travis CI and Docker for integration testing of Ansible Roles
  - Incorporated Ansible Vault to protect sensitive variables
  - Developed a 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)
  - **Demo:** [hauptj.com](https://hauptj.com)
- Spring 2018 - **CentOS 7 Vagrant Box.**  
Present Built a custom 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.**  
Built a custom Docker container with Ansible, Terraform, and OpenStack CLI
- Utilizes 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.**  
Wrote a 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.**  
Developed a 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)

---

## Academic Projects

- 2017 **DevOps**, *SIUE*, Edwardsville, IL, Group Senior Capstone Assignment.  
 Developed a toolkit to assist students gain an understanding of the tools and processes 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 client's 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.  
 Built a mock Email client and server in C++
- Utilized TCP, UDP, logging, authentication and external HTTP API calls via CURL
  - Incorporated SMTP and HTTP status codes and request commands
  - Created a 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.  
 Designed an advanced MariaDB database using crime data published by the city of Los Angeles, California
- **Role:** Linux Server Expert and Web Developer
  - **Actions:**
    - Designed an advanced database using crime data from Los Angeles, California
    - Set up a MariaDB database on a CentOS 7 cloud server
    - Performed frequent database backups
    - Solved configuration problems that arose with CentOS 7, MariaDB, PHP and Nginx
    - Created a web interface that utilized advanced queries
    - Assisted a group member resolve technical problems that made impeded him from accomplishing tasks
  - **Impact:** Created 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.  
 Designed a PHP web application to aid students in studying for the Computer Science AP test
- **Roles:** Git Expert, Linux Server Expert, and Web Developer
  - **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.  
 Engineered a C# desktop application to keep track of inventory at an Animal rescue organization
- **Roles:** Git Expert, Unit Test Developer and Desktop Application 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](https://jnh.bz/swe_proj_ppt.pdf)
- Spring 2015 **File Deduplication**, *SIUE*, Edwardsville, IL, Group Research Project.  
 Research project involving file deduplication
- **Role:** Research Assistant, Linux Expert, and Developer
  - **Actions:**
    - Translated a Java library to C
    - Encouraged group to use 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 professor's expectations
  - **Reference available upon request**

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

## Basic Knowledge

DevOPS	Chef, KitchenCI, AppVeyor	Programming	CSharp, Javascript, CSS
Paas Cloud	Google Cloud	IaaS Cloud	OpenStack
Sys. Admin	Powershell, JumpCloud	Video	FFmpeg

---

## Interests

- Group Programming Working with a group to complete programming projects
- System Design Researching and implementing simple and cost effective solutions for complex problems
- 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
- Networking Attending Tech meetups to learn about new technologies

---

## Languages

- English Native
- German Basic conversational skill level

---

## Honors

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

---

## Volunteer Activities

- Fall 2014 - **Stocker**, DECA, Scott AFB, IL.
- Spring 2015 Stocked shelves at night at the commissary on Scott AFB