

Joseph Kavanagh

SOFTWARE ENGINEER

INTRODUCTION

A highly motivated and results-driven software engineer with a proven track record of delivering innovative solutions in the dynamic field of software development. With many years of hands-on experience, I have honed my skills in designing, developing, and maintaining software applications that not only meet but exceed expectations. My passion for technology, coupled with a strong foundation in computer science, equips me with the ability to tackle complex challenges and drive projects to successful completion. I thrive in collaborative team environments and am dedicated to continuous learning and improvement to stay at the forefront of the ever-evolving software engineering landscape.

HOW TO REACH ME

Email: Joseph@kav.io
Phone: +44 7891 593411
Website: <https://josephkav.io>

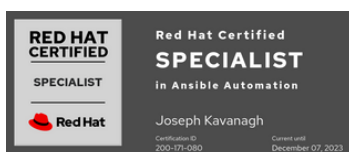
SKILLS

- Go
- Python
- Java
- C++
- TypeScript
- Networking
- Git
- Linux
- Docker
- Kubernetes
- AWS
- Ansible Automation

STRENGTHS

- Problem solving
- Technical expertise
- Analytical skills
- Team collaboration
- Attention to detail

CERTIFICATIONS



**CompTIA
Network+**
Current Until:
26/02/2024

PERSONAL EXPERIENCE

- My most recent project has been a release notifier I've written in Go and named 'Argus' after the many-eyed giant in Greek mythology.
 - At <https://release-argus.io> you can find a demo of the app.
 - It watches sites/GitHub repos that you specify in the config, and can notify you when a new version of the software on that site/repo has been released.
 - It can also track the version you have deployed and compares that version to the latest released.
 - Has a Web UI (written in React) to allow you to view see the data it's collecting, as well as to allow you to approve WebHook(s)/Command(s) that can perform the upgrades.
- Home server running Proxmox (debian-based hypervisor)
 - LXC/Docker/VMs/K3s running services such as AWX (Upstream Ansible Tower), Grafana, MatterMost, NextCloud and UniFi Controller.
 - Used heavily for my dissertation project as it was very CPU heavy, and the Dual Xeon's were able to gather data I would not otherwise of been able to produce or compare.
- Various VPS'
 - e.g. <https://release-argus.io> + <https://josephkav.io>
 - Deployed adnanh/webhook to listen for pushes to github. When a push occurs, this triggers the server to rebuild the static site with Hugo. So any changes to the repo are rapidly deployed to the site.
- Kube cluster on Pi's running VaultWarden and Home-Assistant

WORK EXPERIENCE

Software Engineer

Jamf | May, 2021 to present

- Developed and implemented software solutions for various projects using Python and Typescript (React).
- Utilised full-stack and back-end approaches for different projects.
- Engineered a robust Python application that efficiently aggregates user data, generating detailed customer reports. Pioneered auto-scaling with Kubernetes, scaling the workers to meet demand/lower response times.
- Designed and realised an intuitive, user-centric, full-stack application offering seamless querying of databases and APIs as an alternative to Postman.
- Conducted manual and automated tests for software produced.

Managed Systems Engineer

Orb Data | Aug, 2020 to May, 2021

- Successfully updated and migrated various systems to new platforms/environments, leveraging Ansible, Docker, and Terraform.
- Assessed current processes and proactively designed/implemented automation and version-control solutions to enhance efficiency.
- Developed a robust CI/CD pipeline, integrating git servers and automated testing to ensure functionality of new git pushes before updating web server(s) and coordinating server reloads.

Summer Intern

Flow | July, 2019 to Sept. 2019

Setting up the business' software using AWS services. They are a new company, aiming to provide sensors to companies along with a free app that anyone could download so that they can see whether a place that is subscribed to Flow is busy, in real time.

Involved in:

- Setting up the database to store all of the data
- Creating the backend API that the app talks to when it wants to retrieve data
- Setting up authentication on this so that each user can only see and edit what they need to.

Summer Intern

IBM | July, 2018 to Sept. 2018

Cyber Fundamentals program designed to develop strong cyber security related skills and experience. Included working with a company in the energy industry to develop a phishing solution.

Topics covered included:

- Internet and Hardware
- Networking
- Cyber Crime Industry
- Cloud architecture, management, and security
- Linux administration
- Defensive and Offensive Cyber
- JS/Python/C++/Bash

EDUCATIONAL TRAINING

Durham University (2016-2020)

First Class Bachelor of Science (Hons) in Computer Science

Modules included Software Engineering, Software Methodologies, Advanced Computer Systems and Digital Electronics, Theory of Computation, Parallel Programming, Networks and Systems.

Final Year Project (Dissertation): Snake-in-the-box.

Implemented three different algorithms to solve the snake-in-the-box problem and compared the effectiveness of each.

The Campion School (2009-2016)

4 A Levels:

A*: Mathematics.

A : Further Mathematics, Biology and Chemistry.

11 GCSEs:

A*: Computer Science, Mathematics, Physics, History.

A : Biology, Chemistry, English Language, English Literature, Classical Studies, Italian, Religious Education.