

Karl J. Haworth

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ABOUT

Highly motivated, leadership driven, team player, and quick learner with extensive experience in application and cloud architecture as well as software delivery. Creative thinker and problem solver with exceptional planning and analytical abilities.

EDUCATION

Albion College, Albion, Michigan

August 2010 - May 2014

Bachelor of Arts

Major: Economics and Management

Minor: Statistics

EXPERIENCE

Senior Principal Developer, Product Technical Lead - Developer Experience, Product Agility

American Airlines

June 2022 - Present

Worked in the Delivery Transformation organization architecting solutions for automation using DevOps methodologies

- Developed overall strategic technical plans and created architecture strategy for shared Kubernetes clusters for enterprise use
- Mentored, guided, and supported developers across American Airlines IT
- Created solutions with high level of innovation, cost effectiveness, high quality, and faster time to market
- Developed the overall automation strategy and managed complex integrations between multiple teams
- Served as a subject matter expert in automation architecture
- Collaborated with business and technical partners to identify and scope the opportunities, outline potential value and ROI, identify risks, benefits and constraints

Principal Programmer, Product Technical Lead - Developer Experience, IT DevOps/Applications

American Airlines

January 2021 - June 2022

Worked in the Delivery Transformation organization architecting solutions for automation using DevOps methodologies

- Developed overall strategic technical plans and created architecture strategy for a developer portal used across all American Airlines information technology
- Mentored numerous developers in their journey from infrastructure engineering to software development
- Created solutions with high level of innovation, cost effectiveness, high quality, and faster time to market
- Developed the overall automation strategy and managed complex integrations between multiple teams
- Served as a subject matter expert in automation architecture
- Collaborated with business and technical partners to identify and scope the opportunities, outline potential value and ROI, identify risks, benefits and constraints

Principal Engineer, IT DevOps

American Airlines

June 2020 - January 2021

Worked in the Delivery Transformation organization contributing to the creation of solutions for automation using devops methodologies

- Created architecture proposals based on identified solution gaps
- Created solutions with high level of innovation, cost effectiveness, high quality, and faster time to market
- Contributed to the overall strategy and managed complex issues within functional area of expertise
- Worked with developers across the company to implement their solutions into an InnerSourced framework

Network Automation Engineer

American Airlines

June 2019 - June 2020

Senior IT Infrastructure Engineer

American Airlines

January 2018 - June 2019

IT Infrastructure Engineer

American Airlines

June 2016 - January 2018

Associate IT Infrastructure Engineer (ADEPT)

American Airlines

June 2014 - June 2016

Statistical Analyst Intern

US Airways

July 2012 - June 2014

TECHNICAL SKILLS

Agile methodology, Kubernetes, Cloud Environments, Terraform, Object Oriented Programming, Unit Testing, TypeScript, JavaScript, React, Express, Python, FastAPI, CI/CD, Docker, GIT, Rest APIs, Websockets, Process Automation, Relational Databases, Cisco Networking, DNS, DHCP, Network Data Aggregation/Mapping, Mac, Windows, Linux, Cisco IOS

AWARDS

PSA Core Values Q3 2022

As part of living the company values, Karl Haworth is recognized for his selfless attitude through helping others win, making space for all voices, finding the excellence in others, and embracing hard conversations.

- *Managing Director, Cloud and Engineering Platforms*

September 13, 2022

Delivery Transformation Principals Award

This team developed a comprehensive interface to deliver Infrastructure for IT-to-IT, and enable Real Time delivery of our products through automation. Their automated and integrated delivery infrastructure will be a huge time saver for many teams in the infrastructure procurement process.

- *Chief Information Officer (CIO), Executive Vice President (EVP)*

December 19, 2019

NOTABLE RECOGNITION

Thank you for all your help with understanding Runway and it's GitHub Workflows. Especially, your help on the Runway issues has been invaluable! Thanks for taking the time to meet with us, as well. Have a Great Day!

- *Associate Developer, IT Applications*

Jan 24, 2023

Thank you for implementing the squad members idea of removing patches from dependabot bumps. It's one thing to speak an idea, it's another to actually implement that idea. Whenever you recognize another persons idea, you make them feel

included and validated in their thought process. I appreciate you! #passionate #i-dei
- Sr Developer, IT Applications

Jan 24, 2023

You really go above and beyond to make sure our team and our customers are taken care of. Thank you for everything you do! Our current DR automation is pretty incredible and your #passionate and #accountable work really shows.
- Principal Programmer/Technical Lead, IT Applications

Dec 2, 2022

PROJECTS

Kubernetes Operator for Automation and Abstraction

July 2021 - Present

PROBLEM

Kubernetes can be extremely difficult for application teams to utilize and the number of required resource manifests can be overwhelming

SOLUTION

A Kubernetes operator was developed to abstract away the complexities of the native Kubernetes manifests while bringing along the company's best practices. Through templates in the developer experience portal, the reduced yaml spec is easily setup for users and deployed to the clusters using a GitOps approach.

Kubernetes Kubernetes Operators GitHub Actions Argo CD Terraform Helm Azure Nginx Kuma
KOPF framework Python

- Planned, architected, implemented, automated, and managed a Kubernetes Operator being used by customer facing systems
- Performed requirements analysis and solution architecture design
- Communicated with other stakeholders and end users in the software development lifecycle
- Worked with squad members to mentor and develop skillsets to run a successful operator supporting vital business functions

Developer Experience Platform - Runway

June 2020 - Present

PROBLEM

Launching applications to the cloud is extremely difficult and time consuming for teams while requiring knowledge in multiple technology disciplines.

SOLUTION

An InnerSourced developer platform along with an automated Kubernetes ecosystem was created for handling onboarding to our cloud environment with click to deploy reducing the time to deliver from months to minutes eliminating manual processes.

Kubernetes Kubernetes Operators Backstage.io React Typescript GitHub Actions Argo CD Terraform Helm
REST APIs Postgres Redis Azure Artifactory

- Planned, architected, implemented, and managed an InnerSourced developer platform
- Served as the technical lead to a team of developers
- Mentored new software developers within the direct product group as well as InnerSource contributors
- Followed and maintained agile best practices
- Performed requirements analysis and solution architecture design
- Abstracted complex designs and implementations through a simple developer portal using various backend services
- Communicated with other stakeholders and end users in the software development lifecycle

Enterprise Kubernetes Strategy

April 2021 - March 2022

PROBLEM

Many teams operate their own clusters which poses security and maintainability problems along with a duplication of efforts.

SOLUTION

GitHub Actions was selected to run Terraform to standup new clusters along with full bootstrapping of all cluster components. Reduced the time to standup clusters from months to 40 minutes. Handed off to the work to the newly created Enterprise Kubernetes team to continue.

Kubernetes Kubernetes Operators GitHub Actions Argo CD Terraform Helm Azure Nginx Kuma Datadog
Artifactory Certificates

- Planned, architected, implemented, automated, and managed a Kubernetes ecosystem being used by customer facing systems
- Performed requirements analysis and solution architecture design
- Communicated with other stakeholders and end users in the platform development lifecycle
- Worked with Enterprise to consolidate clusters and create standards
- Worked with customers to troubleshoot problems within their application deployment

COMMUNITY ENGAGEMENTS

Mentor - Engineering Academy

Oct 1, 2021 - Present

Engineering Academy Guidance Board Member - Engineering Academy

Oct 1, 2021 - Present

Batteries included: Developer Experience at American Airlines - DevTools Porto: Backstage

May 10, 2022

American Airlines - Developer Experience, part 2 - Canton Coders

Feb 2, 2022

American Airlines Developer Experience Takes Off With Service Mesh - Kong Inc. Blog

Jan 26, 2022

Runway - The Developer Experience Product @ American Airlines - American Airlines Tech

Dec 21, 2021

Blog