

# Chris Campbell

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I am a software developer and leader with fourteen years of professional experience. I studied computer science at Oregon State University and have since developed my skills as a full stack web developer, DevOps engineer and cloud architect. I began my career working at HP where I built my reputation migrating applications to the cloud. I drove the creation of the HP print businesses cloud platform as the lead architect which supports their cloud connected devices, including enterprise and SMB printers. I then moved to Shopify where I worked as a team lead building cutting edge software tooling to accelerate software development. I'm a futurist and continual learner that loves having an impact while solving challenging problems.

## Skills

**Languages:** Golang, Javascript / Typescript, Bash, Python, Ruby, C#, Java, React / React Native, AngularJS 1.x, HTML, CSS / SCSS,

**Tools:** Terraform, Docker, Systemd, Kubernetes,

**Services:** MongoDB, MySQL, RabbitMQ, Grafana, Prometheus, Redis, Memcached, Linkerd2, Nginx, Envoy,

**Cloud:** AWS (7 years of experience), Google Cloud (5 years of experience.),

## History

### Shopify, Staff Software Engineer (July 2021 - May 2023)

- Implemented infrastructure to support the cloud development environments for Shopify's cloud platform on top of Google Kubernetes Engine (GKE) and GCP.
- Supported thousands of developers and hundreds of projects adopting the cloud environments platform.
- Led the migration from Ubuntu to Container-Optimized OS (COS) for the cloud environments platform.
- Implemented application and SSH proxy for enhanced lifecycle features for user instances, allowing for 30% cost savings on infrastructure.
- Developed a solution for Kubernetes resource defragmentation, resulting in 10% cost savings.
- Kickstarted implementation of cloud environments on VMs as an alternative for users who couldn't run their workloads on Kubernetes.
- Led project and implementation of an in-house replacement for Ngrok to provide a secure tunnel to developer environments (open source implementation @ [github.com/campbel/tiny-tunnel](https://github.com/campbel/tiny-tunnel))
- Created an AI support bot using OpenAI to provide self-service support to developers.

### HP Inc, Cloud Architect (July 2019 - June 2021)

- Led the definition of a cloud development strategy for the entire HP Print software organization.
- Drove development of a container-based cloud platform that sped up innovation, time to market, and mean time to recovery. Platform scope included CI/CD, runtime environment, SaaS integrations (AWS, MongoDB, others..), security, monitoring and alerting.
- Reduced operational costs for projects by 30% from utilizing shared runtime infrastructure and reduced DevOps efforts.
- Maintained developer autonomy by supporting integrations with their current tools and processes.
- Led adoption of key development concepts such as continuous delivery, shift left testing/security, separation of deploy/release and more.
- Oversaw development of EKS automated deployments and management, CI/CD strategy on GitHub Actions, Front-end portal for developer self-service built on Blazor (C#), integrated monitoring with Prometheus and more.

## **HP Inc, Staff Software Engineer (July 2015 - July 2019)**

- Technical lead for cloud components of “licensed” hardware features, accounting for 20 million devices and key technology for HP’s instant ink program.
- Led the microservice transition for my lab of thirty plus developers, cut costs and improved time to deploy from 2 weeks to 1 hour.
- Pushed Docker adoption to speedup and simplify development & deployment and to improve portability of our applications.
- Managed multiple performance ready Docker clusters with high availability, self-healing and monitoring.

## **ChicWeather, Founder and Chief Technologist (January 2015 - August 2017)**

- A startup fashion / weather mobile app, partnering with fashion brands and influencers to drive ecommerce sales.
- Implemented Android and iOS applications using React Native and a Golang backend utilizing Google Datastore and integrations with AccuWeather
- Created a distributed web scrapper using Golang and Google Pub/Sub to automate partner catalog and product imports.
- Used machine learning to automatically categorize and match products to weather conditions.

## **HP Inc, Senior Software Engineer (August 2012 - June 2015)**

- Full stack feature developer for HP’s device remote management platform, supporting more than 10 million devices through HPs managed print services business.
- Led the migration of a bespoke frontend web application to angular JS 1.x, improving performance and developer productivity.
- Worked with HPs design team to implement a new user interface that improved usability and reduced support calls.
- Implemented HPs front-end design components that could be re-used by other teams, saving duplicate development efforts.

## **HP Inc, Software Engineer (July 2010 - August 2012)**

- Worked on HPs print firmware platform APIs for device configuration and management.
- Acted as memory management lead developer for the firmware platform, tracking memory usage and optimizing performance.

## **Publications**

### **Spin Infrastructure Adventures: Containers, Systemd, and CGroups (July 2022)**

### **How Unnecessary Complexity Gave the Service Mesh a Bad Name (September 2021)**

## **Talks**

### **ServiceMeshCon 2021 Keynote (2021)**

Introductory Remarks and Conference Kickoff

### **CNCF Community Meeting Boise - Linkerd2 Intro (2019)**

Provided and overview and introduction to Linkerd2 the original CNCF ServiceMesh

### **DevOps Days Boise 2018 - Tips for Running Docker in Production (2018)**

Everything I’ve learned running containers in production for the past two years.

## **DevOps Days Boise 2017 - Building Docker with Docker in Docker (2017)**

How to utilize Docker as the runtime for your containerized CI/CD pipeline.

## **Community**

### **Linkerd Ambassador (2021 - Present)**

The Linkerd Ambassador badge is a distinction awarded to those community members who are experts in their field and who demonstrate expertise, passion, engagement, and a commitment to sharing their Linkerd experience with the broader community. Linkerd Ambassadors are hand-picked by the Linkerd maintainers.

### **CNCF ServiceMeshCon Program Committee Co-Chair (2021 - 2023)**

A select committee of experts in the field of ServiceMesh that defines the themes and perform selection of talks for the ServiceMeshCon conference.

## **Education**

**Oregon State University - B.S. Computer Science**