James D. Marble

Air Gap Enthusiast and Kubernetes Fanatic

Nevada, USA

Ten years of engineering creative solutions for getting software to Warfighters in tight spots.

Skills

- **Air Gap Cluster Design**
  Engineers systems of computers and their workloads for no-touch, disconnected environments.

  Kickstart/Anaconda, systemd, RHEL, CoreOS, PXE, and iPXE.

- **Microservice Architecture**
  Designs, develops, and deploys containerized Java and Python services along with the infrastructure that they run and communicate on.

- **Continuous Integration and Deployment**
  Transforms manual software delivery into automated, reliable, and safe processes. Extends the benefits of CI/CD beyond application software to operating system and container orchestrator configuration.

  Jenkins, GitHub Actions, GitLab CI/CD, and Bamboo.

- **Kubernetes**
  My kid's Minecraft server, my home lab, and my sprinklers run on Kubernetes. I also manage some clusters at work too.

  Flux, Argo CD, and kapp-controller for continuous delivery. Packaging applications using Helm, Kustomize, and ytt. Deploying clusters using k3s, EKS, TKG and The Hard Way.

Experience

2012-present Sierra Nevada Corporation
Principal Software Engineer

Lead engineer for a team that deployed and maintains multiple instances of Big Bang at a USAF lab.

Technical lead for a team that developed and deployed a system of containerized microservices to a custom, immutable cluster under unique operational constraints.

Developed containerized, software that interfaced with a variety of specialized hardware accelerators and I/O.

Worked directly with customers and users to turn feedback on current iterations into improvements on the next.

2008-2011 University of Nevada, Reno
Research Assistant

Created and managed a CI pipeline used by a robotics lab while simultaneously developing simulation software and publishing research papers.

1999-2007 U.S. Army
Administration Specialist

Conducted two guerrilla automation campaigns on a battalion personnel administration system and a forward post office location. Successfully automated the previously paper-only systems to reduce manual work tenfold while maintaining compliance with record-keeping regulations.

Education

2010 Bachelor of Science in Computer Science
University of Nevada, Reno