

# Naomi Persephone Amethyst



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## PROFESSIONAL EXPERIENCE

### Site Reliability Architect

#### Okta

📅 March 2023 – Current 📍 Remote

- Designed and implemented FedRAMP High-compliant Okta Workflows
- Mentorship across the org
- Manage inter-team relations and dependencies

### Principal Site Reliability Engineer

#### Okta

📅 November 2019 – March 2023 📍 Remote

- Onboarded Okta Workflows infrastructure during Azuqua acquisition
- Built the Okta Workflows SRE team from the ground up
- Team Lead for Okta Workflows SRE
- Architected and implemented Okta Workflows infrastructure
- Designed and implemented HIPAA-compliant Okta Workflows

### Staff Site Reliability Engineer

#### Okta

📅 June 2016 – November 2019 📍 Remote

- Designed and implemented HIPAA-compliant cells
- Designed and implemented FedRAMP-compliant cells
- Innovated on Okta's ingress
- Okta's Networking Subject Matter Expert

### Senior Site Reliability Engineer

#### Okta

📅 January 2015 – June 2016 📍 San Francisco, CA

- Designed Okta's PKI system
- Migrated Okta's customer encryption to use AWS KMS
- Designed and authored production tool execution platform
- Migrated Okta from EC2 Classic to VPC
- Architected and built the Okta Internal Network spanning both VPCs and Regions

### DevOps Engineer

#### Okta

📅 April 2013 – January 2015 📍 San Francisco, CA

- Designed and authored a CMDB built on top of Cassandra
- Redesigned Okta's Chef Cookbooks
- Architected Okta's Taxonomy
- Designed and authored a unified CLI for infrastructure management
- Collaborated to design and migrate Okta to a cell-based architecture

## SUMMARY

just a girl in tech.

who values simplicity,  
but isn't afraid of complexity,

building reliable systems  
for people and things.

## SKILLS

### Cloud Platforms

AWS, GCP

### Container Ecosystem

Kubernetes (kops, k3s, bare-metal), Helm, Docker (and OCI), containerd (and CRI-O), Calico (and Flannel, kube-router), Istio (and MetalLB)

### IaC

Terraform, Crossplane

### Operating Systems

Linux (Debian/Ubuntu, RHEL-derivatives, Gentoo), Solaris (OpenIndiana), FreeBSD

### Networking

TCP/IP, DNS, BGP (and OSPF), Firewalls, Load Balancers, Packet Analysis

### Programming

Java, C++, Go, Ruby, JS, PHP, Python

### Security

PKI, Cryptography, IAM, Vulnerability Scanning (and Remediation), Best Practices

### Compliance

FedRAMP, HIPAA, SOC2

### Monitoring

Datadog, Prometheus, Splunk, ELK, Pagerduty

### Storage

Ceph, Bacula, Minio, S3

### Datastores

Postgres, MariaDB (and MySQL), Cassandra, Redis, OpenSearch, etcd, ZooKeeper, RabbitMQ

### CI/CD

CircleCI, Argo, Concourse

# PERSONAL PROJECTS / VOLUNTEER

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## Home Lab

📅 March 2019 – Current

- Designed and built a 6-node Kubernetes cluster built on k3s on physical machines
  - Racked and stacked physical hardware
  - Implemented a fault-tolerant Ceph cluster with 198 drives and 670TiB of raw storage
  - Implemented Bacula to perform backups to LTO-6 tapes
  - Implemented a home network with BGP and 40Gbit/s backbone supporting more than 150 client devices
  - Implemented Wi-Fi with Ubiquiti's UniFi products
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## Infrastructure

### Tableflippers Anonymous

📅 March 2019 – Current

- Designed and built a 20-node Kubernetes cluster from scratch on physical machines
  - Racked and stacked physical hardware
  - Applied for and received ASN 53546
  - Purchased IP space 144.86.176.0/23
  - Managed BGP peering
  - Implemented PXE to boot diskless images on cluster
  - Migrated existing workloads from Legion's infrastructure
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## v1x1

### Tableflippers Anonymous

📅 October 2016 – February 2019

- Architected and implemented v1x1, a chatbot for Twitch and Discord channels
  - Built using Java, Dropwizard, Redis, Cassandra, and Zookeeper with a service-oriented, no-single-point-of-failure architecture
  - Authored WebAssembly VM from scratch in Java to enable customization of the bot
  - Built a web interface using Angular 2
  - Implemented Argo for CI/CD
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## Infrastructure

### Legion

📅 May 2012 – March 2019

- Designed and built Legion's infrastructure on dedicated servers purchased from CoreNetworks
  - Implemented ZFS snapshotting on top of OpenSolaris and OpenIndiana
  - Migrated infrastructure to OVH
  - Implemented GlusterFS
  - Migrated to CephFS
  - Implemented backups to AWS S3 and Glacier
  - Implemented configuration management
  - Mitigated DDoS attacks
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## Software / ClueBot

### Wikimedia Foundation

📅 July 2007 – Current

- Wrote early portions of the English Wikipedia Account Creation Interface
  - Designed and built ClueBot, a very successful heuristics-based anti-vandalism bot for Wikipedia
  - Designed and built ClueBot III, a discussion archival bot used by over 12,000 discussion pages on Wikipedia
  - Co-created ClueBot NG, Wikipedia's most successful anti-vandalism bot using machine learning and neural networks
  - Submitted patches to MediaWiki for bugs and features
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## Administrator

### Wikimedia Foundation

📅 July 2007 – Current

- Reviewed and approved automated tooling on Wikipedia as a member of the Bot Approvals Group
  - Participated in the rewrite of Wikipedia's Bot Policy
  - Scanned and evaluated reports of open proxies and other abusive clients as a clerk of the Open Proxy Noticeboard
  - Participated in the creation of the Rollbacker user group
  - Authored and maintained Edit Filter rules to prevent bad-faith edits to Wikipedia
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## Software

### Legion

📅 March 2012 – May 2019

- Designed and implemented several dozen plugins to the Minecraft server, Bukkit
  - Made modifications to the Minecraft server, requiring reverse engineering
  - Implemented multi-server coordination and communication
  - Implemented robust user authorization system
  - Designed and implemented mini-games
  - Found and patched security vulnerabilities in the Minecraft server
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## Co-founder

### ClueNet

📅 2005 – 2011

- Implemented Kerberos and LDAP for user authentication and authorization
- Architected and operated a fully-featured mail server using Courier, Maildrop, and SpamAssassin
- Operated an IRC network with various services and bots
- Designed and authored custom IRC services suite
- Managed and moderated the IRC chat rooms
- Dealt with spam, bots, and attacks
- Mediated disagreements between members