

# Naomi Persephone Amethyst

she/her

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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

## 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

## 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

## 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

## 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

## 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

## 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

## 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