

SUMMARY

I'm a software engineer with a background in cybersecurity, time series, builds, CI/CD automation, open source, and I can work with any language for any platform. My main goal in the workplace is to uplift everyone around me. Check out my website above for my open source work and presentations. Currently based in Redmond, WA.

EDUCATION

- **University of California San Diego**

B.S. Computer Engineering

2008

B.S. Mathematics/Computer Science

2008

EXPERIENCE

- **Sysdig, Inc.**

San Francisco, CA

Senior Software Engineer

Jan 2020 - Present

- **Prometheus Remote Write/Storage:** Designed and implemented a service for ingesting millions Prometheus time series per minute while satisfying the Prometheus Remote Storage interface, using Kafka
- **Capture Service:** Designed and implemented a service which allows users to capture ingested Prometheus time series
- **Spotify Backstage Developer Portal:** Deployed, maintained, and extended upon a Spotify Backstage developer portal service, which teams at Sysdig use to make their services, APIs, and documentation discoverable
- **Security Improvements:** Designed and implemented CSRF preventions, SSRF mitigations, and JWTs with event-based revocations as a replacement for user sessions

- **Microsoft Corporation**

Redmond, WA

Senior Software Engineer: level 64

Sep 2012 - Nov 2019

- **Azure Confidential Computing and Open Enclave SDK:** Dev lead for the Azure Confidential Computing Services and Consortium team leading 6 engineers. Produced and maintained the secure and reproducible build pipeline, performed release manager duties, designed the attested secure channel APIs, which leverage TLS and SGX Quotes
- **DCOS/Mesos:** Added Cyrus SASL and libarchive support for the Windows Mesos agent
- **PowerShell for Linux + Desired State Configuration:** Ported Windows PowerShell and Desired State Configuration to Linux
- **System Center for Linux/UNIX:** Ported Windows System Center (SCCM/SCOM) to Linux/UNIX

- **Info Tech Inc.**

Gainesville, FL

Programmer

Apr 2010 - May 2012

- **Estimator Project:** Lead software developer for a large and mature product used by US State Departments of Transportation: <https://www.infotechfl.com/estimator>

- **University of California San Diego**

La Jolla, CA

Tutor

Jan 2004 - Mar 2008

- **Computer Science Department:** Graded exams, taught sections, held lab hours, automated homework grading

PROGRAMMING SKILLS

- **Languages:** Rust, C, C++, Python, Java, C#, Go, Bash, Powershell, Perl, Javascript, Typescript, Scheme, OCaml, Mathematica, CMake, GNU Make, x86_64 assembly, SPARC assembly
- **Technologies:** Kubernetes, Docker, gRPC/protobuf, REST, DEB/RPM/NuGet packaging, Helm, Jenkins, Harness, Spotify Backstage, Redis, Postgres, MySQL, Kafka, NATS, Prometheus, Grafana, Azure, AWS, IBM Cloud, OpenSSL, Mbed TLS, Public Key Infrastructure (PKI), OpenID/OAuth2, SGX, Remote Attestation, Linux/Windows dev toolchains, Linux Kernel, Raspberry Pi, FFmpeg, Video/audio codecs
- **Concepts:** Security, Asymmetric/Symmetric cryptography, Cloud design patterns, Build systems, CI/CD pipelines and automation, Open source, and Cross-platform software engineering, Mathematics