

## SUMMARY

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I'm a software engineer with a background in cybersecurity, time series, Linux admin/systems programming, and Kubernetes. 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 more info. Currently based in Redmond, WA.

## EDUCATION

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- **University of California San Diego**

*B.S. Computer Engineering*

2008

*B.S. Mathematics/Computer Science*

2008

## EXPERIENCE

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- **Microsoft Corporation**

*Principal Software Engineer*

Redmond, WA

*Jun 2022 - Present*

- **Azure Core Mission Critical Engineering:** Details under NDA

- **Sysdig, Inc.**

*Staff Engineer*

San Francisco, CA

*Jan 2020 - Jun 2022*

- **Prometheus Remote Write/Storage:** Designed and implemented a service for ingesting tens of millions of time series per minute through the Prometheus Remote Storage protocol. Wrapped service and configuration with Kubernetes manifests, integrated into helm charts
- **Backend DevOps:** DevOps work as an backend engineer, managing entire company's applications in more than 20 Kubernetes clusters
- **Security Improvements:** Designed and implemented CSRF preventions, SSRF mitigations, and JWTs with event-based revocations as a replacement for user sessions

- **Microsoft Corporation**

*Senior Software Engineer*

Redmond, WA

*Sep 2012 - Nov 2019*

- **Azure Confidential Computing Services and Consortium:** Dev lead for the Azure Confidential Computing Services and Consortium team leading 6 engineers
- **Open Enclave SDK:** Created the official Jenkins build pipeline using Groovy/Bash/PowerShell/Ansible, performed releases, helped design the attested secure channel APIs (leveraging TLS and SGX Quotes), helped design the oecrypto interface, helped implement the SGX Kubernetes device plugin
- **PowerShell for Linux + Desired State Configuration:** Ported Windows PowerShell libraries and Desired State Configuration to Linux
- **System Center for Linux/UNIX:** Ported Windows System Center (SCCM/SCOM) to Linux/UNIX

- **Info Tech Inc.**

*Programmer*

Gainesville, FL

*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>

## PROGRAMMING SKILLS

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- **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, Linux admin/systems programming, CI/CD pipelines and automation, Open source, and Cross-platform engineering, Mathematics