Steven Chen

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EDUCATION

The University of Texas at Austin   Austin, TX
Bachelor of Science in Electrical and Computer Engineering; GPA: 3.9   *Aug 2022 – May 2026*

EXPERIENCE

DevOps/Cloud Engineering Intern   May 2025 – Aug 2025
IBM   *Austin, TX*
- Migrated CI pipeline to deploy a new Rust-based HSM binary, replacing legacy C++ integration.
- Implemented role-checking logic to verify IAM permissions for hardware HSM access during pipeline executions.
- Tested and documented integration of a vendor tool enabling smart card-based authentication for secure HSM access.
- Added grouping functionality to run batch read-only operations across HSMs, simplifying compliance audits.
- Maintained internal Slack bot by fixing interactive UI flows, investigating TLS handshake issues, and designing key rotation.

DevOps/IT Intern   Jun 2024 – May 2025
ERCOT   *Taylor, TX*
- Designed a modular Python automation framework to integrate dependency-based Jira Plans with any API-driven tool.
- Created a proof of concept leveraging Jira and Ansible Tower APIs to automate issue tracking, dependency resolution, and playbook execution.
- Integrated Microsoft Teams for real-time alerts, manual task notifications, and bi-directional Jira ticket updates from chat.
- Developed a custom CytoscapeJS visualization plugin for near real-time status tracking of Jira Plans within Splunk dashboards.

Backend Developer   Jan 2024 – Dec 2024
Texas Luminescence   *Austin, TX*
- Collaborated with the backend team to develop a REST API using Flask and MySQL for a journaling web application.
- Wrote Dockerfiles and configured Docker Compose to containerize the app and manage service dependencies.
- Deployed the full application stack on Azure using Docker Compose, configured DNS via Route 53, and secured traffic with Let's Encrypt TLS certificates.
- Authored comprehensive documentation to help onboard new developers in the organization.

PROJECTS

Homelab   Aug 2018 – Present
- Configured and maintained a homelab environment running Git, Jellyfin, Bitwarden, Nextcloud, game servers, and a personal website.
- Used Proxmox as the hypervisor to manage virtual machines and TrueNAS for centralized storage via iSCSI, NFS, and SMB.
- Configured pfSense to segment the network using VLANs and firewall rules, isolating services and enforcing access control.
- Automated VM provisioning and system configuration using Ansible to reduce manual setup.

Personal Website Upgrade   Aug 2025 – Present
- Provisioned Talos Linux nodes on Proxmox using a Terraform provider and applied machine configurations to bootstrap a Kubernetes cluster.
- Deployed a production-ready cluster with Cilium CNI, Longhorn for distributed storage, and Gateway API with cert-manager for secure service exposure.
- Set up Woodpecker CI to build the website from Markdown content and containerize the output.
- Used Argo CD with GitOps workflows to continuously deploy website updates from Gitea repositories.

TECHNICAL SKILLS

CCNA, C/C++, Python, Git, Splunk, Virtualization, Cloud-Init, Linux, Bash, Docker, Terraform, Ansible, Talos, Kubernetes, Cilium, Longhorn, NGINX, Woodpecker CI, Argo CD