Ryan Dong

https://github.com/Unbounder1
www.ryan-dong.com

EDUCATION

Rensselaer Polytechnic Institute

Bachelors of Computer Systems Engineering, Computer Science Minor *August 2023 - May 2027*

Relevant Coursework (to be completed by Summer 2026): Embedded Control, Data Structures, Comp Architecture & Networks, Foundations of CS, Engineering Probability, Electric Circuits, Intro to Algorithms, Computer Communication Networks, Advanced Computer Systems, Quantum Physics, Internetworking of Things

EXPERIENCE

IBM Tucson, AZ

SRE DevOps Engineer Intern *Present*

- Eliminated 4 years of tech debt by rebuilding a deprecated 'temporary' CLI observability tool as a React/JS platform
- Extracted data using internal REST endpoints authenticated with ISV, and implemented encryption for data stored at-rest
- Deployed on RedHat Openshift AWS cluster with Helm, Kustomize and ArgoCD, with auto rotating encryption keys
- Created Github API CI pipelines with Tekton with unit/build testing, integrated Oauth with ISV JWT token to tool
- Handled production change requests on JIRA during promotions ensuring 0 downtime for 99.99% uptime
- Standardized & restructured all of internal SRE documentation to provide clarity and increase visibility
- Presented case study of applications of Openshift Istio service-mesh on service architecture w/ cost & feasibility analysis

Machina Labs Los Angeles, CA

IT Systems Administrator Intern *May - July, 2024*

- Automated Windows device lifecycle process using Azure Active Directory, Intune, and Powershell scripts
- Deployed networking infrastructure at new site; set up VLAN, firewall policies, and VPN, with Fortigate firewall
- Optimized employee workstations, saving over 10k$ company wide by implementing benchmarks & designing specs
- Provided technical support for Linux/Windows, reduced ticket backlog by 90%, Shadowed CI/CD process on Azure

PROJECTS/AWARDS

Personal Blog ***2025-present***

Website created to host project demos, document thought processes, and showcase engineering logic

- Developed a performant Golang backend with HMAC authentication, PostgreSQL, and MINIO object database
- Built the frontend using Astro framework & React, implemented CI/CD pipelines and automated blog update via Jenkin
- Validated backend scalability with locust, sustaining 10,000+ concurrent users under load with <200ms p99 latency
- Automated blog content generation by abstracting markdown posts by creating Jinja2 and Python functions

Circuit to LTSpice Conversion Tool ***2025***

Auto analyze & reconstruct hand-drawn circuits into LTSpice simulation, saving 50+ hours in manual circuit building

- Used a PyTorch Object Detection machine learning model for component processing trained on public-sourced dataset with a mAP@50 accuracy of 94%, and deployed on Kubernetes for demonstration
- Utilized OpenCV for image processing, pytesseract for OCR, & advanced algorithms optimizing processing by 100x

WALKR ***2024***

AR assisted navigation mobile app with accessibility options

- Won #1 Best Hack of HackRPI 2024 out of over 100 teams
- Built using Java & Android SDK, Implements ARCore, Geospatial, and Places API
- Handled AR-integration, GPS routing logic, overall assembly, and project management

CI/CD & Web K8s Cluster: ***2023-present***

HA K8s cluster utilized to self-host applications

- Implemented Calico CNI with Tailscale ingress, NFS provisioning, Cloudflare Tunnels for reverse proxy
- Monitoring metrics & automated response with Prometheus Alertmanager webhooks & Jenkins scripts
- Base for all personal software deployment, testing, learning

SKILLS & HOBBIES

- **Coding, Scripting** - C++, Golang, Python, Bash/Shell Scripting, Javascript, Red Hat Certified Engineer: (220-166-979)
- **Server Administration** - Docker/Podman, Networking, SELinux, Ansible, Kubernetes, Terraform, Jenkins, Microsoft Entra ID, Intune, Powershell Scripting
- **Cloud Infrastructure/Frameworks** - Prometheus Monitoring, Astro, Helm, Git, React, PostgreSQL, Openshift, AWS
- **Hobbies** - DIY Tech Projects, Weightlifting, Swimming, Biking, VFX, Cinematography