HENRY LUENGAS

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EDUCATION

California Polytechnic State University – San Luis Obispo — College of Engineering, B.S. in Computer Science

SKILLS

Systems, Frameworks, Apps — Linux, Containers, Azure, Kubernetes, AKS, Terraform, Helm, Ansible, Chef, WSL, Tailscale, SQL, OAuth, OIDC, WebAuthn, Draw.io

Programming Languages — Bash, Python, Rust, Go, JavaScript, C, C++, Markdown, Julia, Elm, Java

Network Infrastructure — TCP/IP, VLAN, 5G Core & RAN, WiFi, SDN, Wireguard, Structured Cabling

EXPERIENCE

Senior Software Engineer – AT&T CIO Automation Platforms Development – Dallas, TX — Oct 2022 – Present

Shared Platform Ops Team

- Deployed, maintained, and supported six shared platforms used by AT&T developers hosting service delivery and service assurance applications on premise and in Azure
- Served as system administrator for 52 AKS clusters comprised of 1,500+ VMs with over 42,000 cores required for daily operation of 25+ internal development teams
- Designed and deployed Azure infrastructure to host the AT&T Software Symposium website using Terraform and Azure DevOps (ADO) pipelines for a structured IaC deployment
- Modernized Software Symposium website through redevelopment on a new tech stack and reimplementation using Azure Infrastructure as a Service (IaaS) resources
- Adapted site to cloud native design and created container based CI/CD GitHub Action workflows for the development team

Network Engineer – AT&T CIO Technology Development Program – Dallas, TX — Jan 2021 – Oct 2022

Software Engineer – Wireless Technology, Network Analytics & Automation

- Containerized an app used for daily analysis of Passive Intermodulation (PIM) at network cell sites
- Deployed the app to a Kubernetes cluster on Azure using Terraform and Helm

Specialized Networks Consultant – Consulting, Mobility & IoT Professional Services

- Developed, deployed, and presented 5G & IoT technical demonstrations highlighting video intelligence use cases for warehouse logistics to Private Cellular Network customers
- Implemented a containerized video transcoding app to stream 5G camera footage to internet video platforms using Docker and FFMPEG, as a technical demo for Private Cellular Networks
- Served as an administrator for the AT&T 5G Technical Associate Certification Course and as instructor for the section on container virtualization, CNFs, and VNFs

Data Steward – Network Cloud, Blue Train Fabric Automation

- Automated cleaning and formatting process for physical and virtual network device setup data used by AT&T's internal cloud platform using Python and Microsoft Excel

PROJECTS

Tie-Dye Pixel Art Renderer

- Wrote a renderer in Python demonstrating various methods of process acceleration
- Implemented sequential and parallel running modes to assess performance of CPU parallelism
- Implemented a GPU compute mode with OpenCL showing process scaling to hundreds of workers
- Implemented an R* Tree spatial data structure to highlight speed increase from an optimized algorithm

Networked Chat App and Packet Analyzer

- Wrote client and server programs in C that use TCP to convey custom message packets between users
- Created a utility in C that uses NPCAP to inspect packets, functioning like a basic version of Wireshark