Gabriel D. Coffland

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Education

Western Washington University *2017 - 2021*

Bachelor's of Science in Computer Science
Minors: Embedded Systems, Mathematics, Physics

Work Experience

Software Developer Engineer in Test — *CSI Interfusion* *2024 - Present*

- Collaborated with hardware and software engineers on-site at Microsoft to migrate essential tools to relevant codebases, ensuring seamless integration and functionality.
- Designed and developed tools to automate performance testing and metric collection for handheld gaming devices, improving efficiency and reliability in system diagnosis.

.Net Developer — *Allyis* *2022 - 2024*

- Contributing member of the development team overseeing Entra Connect, a system facilitating the synchronization of data between Azure tenants and on-premises Active Directories on Windows machines, written primarily in C#, C++ and Powershell.
- Collaborating with cross-functional teams, including product managers and fellow developers, to deliver top-tier software solutions.
- Building, debugging, and shipping software solutions for a clientele of 500,000+ users.
- Conducting comprehensive code reviews and consistently producing high-quality code aligned with best practices and coding standards.

Open Source Contributions

inetd — **NetBSD Operating System**

Updated, Refactored and added new features to the outdated super server inetd. New features include a configuration file syntax to allow for more verbose and flexible service definition, as well as ways of limiting incoming service requests on a per-service basis.

Projects

Standalone alarm system

Using a Cortex K65 microcontroller, designed and implemented an RTOS alarm system and required drivers that utilized touch sensors, keypad, speakers, and LEDs. Written in C, and ARM(Thumb-2) assembly.

DogBot

As a solo developer, created a custom Discord bot, leveraging third-party repositories to provide text based AI image generation and entertainment streaming for on-demand querying. Personally hosted on optimized hardware for a local community.

NullPointer

Personally designed, constructed, and maintained a high-availability Proxmox cluster for a community of 80+ users. Leveraged virtualization and containerization to host numerous client services, ensuring effective resource isolation and optimal performance. Additionally designed a stand-alone performance and metrics monitor using a Raspberry Pi microcontroller.

Additional Skills

Java, C, C#, SQL, Python, LaTeX, Racket, HLSL, Assembly (ARM/x86), Bash, Powershell, Unity, Godot, Visual Studio, PowerApps, Linux, Windows 7/10/11, Azure Cloud Services, Digital Circuit design, Embedded Systems, FPGA design, Robotics, Parallel Computing, Functional, Programming, Digital Logic, Calculus, Linear Algebra, Virtual Machines, Cloud Computing, Kusto, Proxmox, Cluster management, Virtualization, Machine learning