

EDUCATION

B.S. Computer Science Seton Hill University

PROFESSIONAL EXPERIENCE**Nuclear Software Engineer at X-energy** [November 2025 - Present]

- *Source Term Toolkit:* C# development using **.NET 8**
 - Implementing finite difference algorithms to model reactor core spatial kinetics. This improved neutron flux granularity in the simulation compared to the old point kinetics solution.
 - Development of unit and integration test automation using **NUnit**. Reconciled existing unfinished test suite with software requirements to fill gaps in testing.

Radar Software Engineer at C Speed [March 2025 - November 2025]

- *Light Wave Radar:* C and C++ development for a **RTOS**
 - Creating a **SQLLite** database interface which receives, organizes and stores high frequency data streams from multiple sources.
 - Adding a **TCP** socket communication layer to multiple applications enabling bidirectional communication between multiple machines on a **LAN**
 - Development of test server **powershell** scripts used to run data processing software in a vacuum and check output using binary comparisons. Automated this process using **Gitlab pipelines**.

Design Services Software Engineer at C Speed [June 2023 - March 2025]

- *Patient Monitor Medical Device:* C and C++ development for a **Yocto** embedded OS
 - **Linux kernel** development including removal/modification of various drivers, creation of udev rules, and adjusting kernel configs
 - Application UI overhaul using C++ with **Qt** graphical framework adhering to FDA usability requirements and **UI/UX** design standards provided by the client
 - Development of an automated **bitbake** build process running on an **Azure** cloud **Ubuntu** VM using **Jenkins** continuous integration
- *Medical Device Service Tool:* C# development using **.NET** framework 3.5
 - Development of a **WPF** desktop application which interfaces with medical devices via USB connection
 - Implementation of software security features such as dynamic **AES encryption**, password complexity policies, and automatic timeout/logout
 - Development of a **unit test** suite for the core application in **Visual Studio**

Student Programmer at Seton Hill University [June 2022 - June 2023]

- *Student/Faculty Web Portal:* Migration of a **PHP** web app from Symfony to Laravel framework
 - Migration of various student and faculty facing features using **PHP** with Laravel/Filament to query and present data from a **MySQL** database

TECHNICAL SKILLS

Programming Languages: C++, C#, C, Python, Swift, Javascript, PHP, Bash, Powershell

Tools: Git, Tortoise SVN, Azure, TFS, DevOps, Visual Studio, VSS, WSL, Jira, GCC, CMake, Uboot, Bitbake, SSH, PSOC, Tera Term, iTerm, .NET, React, Qt, Jenkins, Docker, VirtualBox, Vercel, SQLite, NUNIT

SUMMARY OF ROLES

- **Individual Contributor:** Developing, deploying, reviewing and testing embedded RTOS software, Windows desktop and CLI applications, iOS mobile applications, and cross-platform web applications.
- **Technical Lead:** Scoping and planning projects using both agile and waterfall, maintaining documentation (SRS, SDS, SBOM, etc.), and frequently interfacing with both management and clients.
- **Engineering Recruiter:** Representing a company at multiple career fairs and conducting technical interviews.