
Core Technical Skills

Programming Languages: C#, C++, Qt, bash shell script, HTML/CSS/JavaScript, Powershell, VBA, JSON, XML

Frameworks and Environments: Windows Presentation Foundation (WPF), Web APIs, ASP.NET, Unity3D

Server Applications: nginx, MongoDB, SQL, NoSQL

Professional Experience

- **Quatrefoil Associates**

Software Developer

Laurel, MD

November 2019 – current

- Sole developer of nationally displayed interactive museum exhibits primarily developed in C# with WPF
- Developed remote control software to handle restarts, scheduled daily shutdown and startups, and error/usage logging
- Worked closely with and gave input to UI designers to improve user experience
- Supported current and legacy projects by remotely deploying applications, bug tests, and fixes
- Accommodated unique client needs like touchless interactivity and interfacing with audio and video equipment to provide memorable and immersive experiences to visitors of the museums

- **Project Worldwide**

Developer - Contracted

International (Remote)

November 2019 – December 2019

- Developed a custom library that converts FlexCell graphs to a Google Sheet as part of an effort to modernize their legacy in house VBA and Windows Form based applications
- Handled proper permissions corresponding to Google log-in credentials with OAuth 2.0

- **Office of Information Technology, Rutgers University**

Assistant Lab Supervisor

New Brunswick, NJ

December 2016 – August 2018

- Oversaw group of 150+ consultants
- Responsible for heading development tasks such as the Shift Report Tool - details below under Projects header
- Ran training sessions for consultants in advanced networking concepts and troubleshooting scenarios
- **Awarded:** Supervisor Achievement Award, Fall 2017

Residential Networking Consultant

April 2015 – December 2016

- Level 2 technology troubleshooting for the student body. Set up 802.1X profiles for students to connect to the University wireless network.
 - Dispatched out to users' residences to set up routers, smart TV's, and game consoles as well as troubleshoot issues with users' devices like poor wireless connectivity, authentication, and port issues.
 - **Awarded:** Consultant of the Month, March 2016 & September 2016
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Projects

- **Quatrefoil Show Control**

C#, MQTT, Node-RED, Windows Service

Custom comprehensive remote control software to handle scheduling daily shutdowns and startups, restarts, connection checks, and error and usage logging of all exhibit devices. Deployed in all of the firm's ongoing museum projects. Windows based devices are controlled by a Windows Service + MQTT routed through a Raspberry Pi running a Node-RED server.

- **American Cemeteries Touchless Exhibit**

C#, WPF, LEAP Motion

Museum exhibit developed for the National Flag Foundation in Pittsburgh, PA. Displays information on various international American war cemeteries. Visitors interact with the exhibit touchlessly by using hand gestures to click and scroll.

- **Picket Fence Ranking System**

C#, ASP.NET, Blazor WebAssembly, Web APIs, nginx, MongoDB

Sole full stack developer and designer on a ranking system for professional swing dance competitors. Created a custom ELO-based algorithm. Competitor records are stored in a Mongo database and served by a Blazor built website via web APIs.

- **Shift Report Tool**

C#, Powershell, VBA, Visual Studio, SQL

Consultant management tool for Rutgers University Office of Information Technology. Consultants fill out what duties they performed while on shift in a Windows Form Application. Sends an email to the supervisory team and uploads a copy of the report to an Access database via SQL so supervisors can monitor and run audits on consultant activities.

Education

- **Rutgers University**

Attended School of Arts & Sciences, towards B.S. in Computer Science

New Brunswick, NJ

2015 – 2019