William Box

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EXPERIENCE

Champlain College EMC (Internship), Burlington VT — Lead Programmer

May 2024 - Aug 2024

- Lead feature development for a prototype game under the Endless Mission IP
- Developed key game systems: text-command parser, network simulation with IP/subnet functionality, YarnSpinner extensions, and a puzzle interface for state-management

Fortress Computer Pros, San Diego CA — IT Systems Administrator

Oct 2019 - Feb 2021

- Directly aided clients with system level technical issues
- Coordinated with clients to minimize system and network down-time during software roll-outs and maintenance
- Managed roll-out of new features and software on client systems and network

Perspecta, San Diego CA — *Test Engineer Team Lead* Oct 2018 - Sept 2019

- Oversaw the End User Services VnV Team
- Managed a team of 4 people
- Oversaw the testing of solutions to be implemented in the NMCI network

US Army, Fort Stewart — *IEW Systems Technician* Nov 2016 - Sept 2018

- Maintained virtual servers running on the VMware virtualization platform
- Managed both Windows Server and Redhat Linux systems
- Trained soldiers who were assigned to the technician shop in the structure and repair procedures of our Virtual Server array
- Awarded an Army Achievement Medal for excellence in performance supporting operations in Afghanistan

US Army, Camp Humphreys — *IEW Systems Technician* Sept 2015 - Sept 2016

- Maintained airborne intelligence platforms in support of both the U.S. Army and the Republic of Korea
- Managed both Windows Server and Solaris systems
- Awarded an Army Achievement Medal for excellence in performance supporting operations in South Korea

SKILLS

- \bullet C++ and C#
- Unity Game Engine
- Unreal Engine
- Unreal Engine Blueprints
- Unreal Engine C++ API
- Physical Hardware Maintenance
- Network and Computer Administration
- Leadership Experience
- Critical Thinking
- Work well under stress
- Windows Server and Redhat Linux server administration
- Cisco and Dell switch and router administration
- Vmware Server Maintenance
- Project Planning

EDUCATION / TRAINING

Champlain College, VT — Bachelor of Science in Game Programming Aug 2021 - May 2025

Champlain College, VT — Minor in Math Aug 2021 - May 2025

Fort Huachuca, AZ — 35T Intelligence Systems Maintainer Integrator Nov 2014 - Aug 2015

PROJECTS

FISH!, Champlain College, Jan 2024 - Apr 2024 — Programmer

- Project was made in Unreal Engine 5.3
- Implemented a Wave-Function Collapse system in C++ to procedurally generate levels
- Utilized pre-made tiles with adjacency constraints to construct interesting levels
- Implemented an AActor spawning system in C++ to manage spawning agents into the scene after level generation
- Implemented a rebindable control system using Unreal Engine Blueprints to allow for rapid iteration of the default control scheme

Game Physics Final Project, Champlain College, Oct 2019 - Feb 2021 — Programmer

- Constructed a Z-Order Space-Filling-Curve using a parallel construction algorithm ran in a compute shader
- Mapped the spatial coordinates of particles within a discrete space to positions along the Z-Order Curve
- Utilized the Z-Order position of the particles to then determine what particles should be tested against each other for collision
- Project was made in Unity
- Shader code was written in HLSL

$\textbf{Intro to Modern Graphics Programming Final Project, Champlain College}, \textit{Oct 2019 - Feb 2021} -- \textit{Programmer Project}, \textit{Champlain College}, \textit{Oct 2019 - Feb 2021} -- \textit{Programmer Project}, \textit{Champlain College}, \textit{Oct 2019 - Feb 2021} -- \textit{Programmer Project}, \textit{Champlain College}, \textit{Oct 2019 - Feb 2021} -- \textit{Programmer Project}, \textit{Champlain College}, \textit{Oct 2019 - Feb 2021} -- \textit{Programmer Project}, \textit{Champlain College}, \textit{Oct 2019 - Feb 2021} -- \textit{Programmer Project}, \textit{Champlain College}, \textit{Oct 2019 - Feb 2021} -- \textit{Programmer Project}, \textit{Champlain College}, \textit{Oct 2019 - Feb 2021} -- \textit{Programmer Project}, \textit{Champlain College}, \textit{Oct 2019 - Feb 2021} -- \textit{Programmer Project}, \textit{Champlain College}, \textit{Oct 2019 - Feb 2021} -- \textit{Programmer Project}, \textit{Champlain College}, \textit{Oct 2019 - Feb 2021} -- \textit{Programmer Project}, \textit{Champlain College}, \textit{Oct 2019 - Feb 2021} -- \textit{Programmer Project}, \textit{Champlain College}, \textit{Oct 2019 - Feb 2021} -- \textit{Programmer Project}, \textit{Champlain College}, \textit{Oct 2019 - Feb 2021} -- \textit{Programmer Project}, \textit{Champlain College}, \textit{College}, \textit{Co$

- Constructed a 3d scene in OpenGL
- Utilized multiple light sources (two point lights, one directional light) to illuminate 3d meshes generated at run time
- Project was written in C++
- Shader code was written in GLSL