

NIGEL CHARLESTON

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Portfolio: <https://nigelcharleston.dev/>

SKILLS

Languages: C, C++, C#, Python, JavaScript

Game Engines: Unity

Software: Linux, Windows, Jira, Git, Microsoft Visual Studio

GAME PROJECTS EXPERIENCE

Desolation Place (<https://wolverinesoft-studio.itch.io/desolation-place>)

Studio Technical Lead (25 Developers)

June 2020 – August 2020

- Oversaw a sub-team of 5 developers in designing and implementing features for the player experience in the Unity Engine and C#
- Assigned weekly tasks amongst the player team to develop essential gameplay mechanics, user interface, and audio via Jira
- Maintained communication with the level design and enemy teams daily to ensure player mechanics interacted well with other gameplay systems
- Performed code reviews on pull requests to the game's source repository, checking for quality and compliance with the studio's style guidelines

Io (<https://wolverinesoft-studio.itch.io/io>)

AI Programmer (57 Developers)

January 2020 – April 2020

- Programmed the attack and movement behaviors for two enemies present in the final game, using the Unity Engine and C#
- Fine-tuned the functionality of enemies in the game, determining their right level of difficulty and improving their design
- Revised the implementation of the enemy AI across an Agile development cycle, iteratively improving their behavior

The Magic Hat (<https://nigelcharleston.dev/magicHat.html>)

Gameplay Programmer (5 Developers)

October 2019 – December 2019

- Implemented player movement controls, a game object that manages the state of the game, and bug fixes that improved the playability of the game with Unity and C#
- Utilized an iterative development cycle based on weekly player feedback to quickly implement and improve the game's mechanics

WORK EXPERIENCE

University of Michigan – Electrical Engineering and Computer Science Department

Teaching Assistant for EECS 281 – Data Structures and Algorithms

September 2019 – Present

- Led and taught weekly discussion sections to groups of 20+ students covering C++ programming concepts, data structures, and algorithms to improve their understanding of material covered in lecture
- Conducted remote office hours (2 hours a week) to support students with the course's C++ projects, lab assignments, and theoretical concepts
- Wrote midterm exam questions to challenge over 900+ students in their understanding of the course material

Qualcomm – Camera Software Team – Redford, MI

Software Engineering Intern

May 2020 – July 2020

- Developed a debugging tool with Python, HTML, and JavaScript that can parse and analyze core dumps, enabling customer engineers to troubleshoot errors triggered within Qualcomm's camera system
- Revised tool design and functionality to satisfy the requirements of customer engineers and improve the maintainability of the tool

EDUCATION

University of Michigan – Ann Arbor, MI

Bachelor of Science - Computer Science

December 2020

Courses: Linear Algebra, Video Game Development, Data Structures and Algorithms, Operating Systems

Activities: WolverineSoft (game development), National Society for Black Engineers, Computing for All