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, Probability and Statistics, Video Game Development, Data Structures and Algorithms, Operating Systems
Activities: WolverineSoft (game development), National Society for Black Engineers, Computing for All