

NIGEL CHARLESTON

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

SKILLS

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

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

Game Engines: Unity

LONG TERM GAME PROJECTS

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 which designed and implemented gameplay systems tied to player experience
- Assigned weekly tasks amongst the player team to develop essential gameplay mechanics, user interface, and audio in Unity and C#
- Maintained communication with the level design and enemy teams daily to resolve issues with player mechanics interacting with the game environments

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

AI Programmer (57 Developers)

January 2020 – April 2020

- Programmed the attack and movement behaviors for 2 enemies present in the final game, using the Unity Engine and C#
- Revised the implementation of the enemy AI across an Agile development cycle, improving their functionality over time

WORK EXPERIENCE

University of Michigan – Electrical Engineering and Computer Science Department – Ann Arbor, MI

Teaching Assistant for EECS 281 – Data Structures and Algorithms

September 2019 – Present

- Lead and teach weekly discussion sections to groups of 20+ students covering C++ programming concepts, data structures, and algorithms to strengthen their understanding of material covered in lecture
- Conduct remote office hours (2 hours a week) to support students with the course's C++ projects, Windows-specific development issues, and theoretical concepts
- Create midterm and final 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 visualization tool with Python, HTML, and JavaScript that can parse and analyze core dumps, enabling 4 customer engineers to troubleshoot errors triggered within Qualcomm's camera software
- Revised tool design and functionality to satisfy the customer engineers' requirements and improve the project's maintainability
- Wrote a unit tests script in Python that validated for well-formatted input data and correctness of the tool's output

University of Michigan – Electrical Engineering and Computer Science Department – Ann Arbor, MI

Grader for EECS 494 – Computer Game Design and Development

January 2020 – April 2020

- Evaluated and graded computer game projects developed by 100+ students taking the course for assignment requirements
- Provided feedback to students regarding their submissions, allowing them to improve upon their games' design and gameplay in future deliverables

EDUCATION

University of Michigan – Ann Arbor, MI

Bachelor of Science - Computer Science

December 2020

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