NIGEL CHARLESTON

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Game Development Portfolio: https://nigelcharleston.dev/

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EDUCATION

University of Michigan – Ann Arbor, MI

Bachelor of Science - Computer Science *December 2020*

- **Courses:** Video Game Development, Matrix (Linear) Algebra, Operating Systems, Data Structures and Algorithms, Computer Security
- **Activities:** WolverineSoft (game development), National Society for Black Engineers, Computing for All

GAME PROJECT EXPERIENCE

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

Studio Leader (25 Developers) *June 2020 – August 2020*

- Oversaw a sub-team of 5 developers in designing and implementing features for the player experience in 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

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

Artificial Intelligence 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

WORK EXPERIENCE

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
- Aided the triaging of issues by visualizing the camera stack as a hierarchy of layers, making report lookups readable and intuitive

University of Michigan – Electrical Engineering and Computer Science Department

Instructor Aid for EECS 281 – Data Structures and Algorithms *September 2019 – June 2020*

- Led weekly discussion sections to groups of 20+ students on data structures, algorithms, and C++ programming concepts, improving 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 700+ students in their understanding of the course material

University of Michigan – Electrical Engineering and Computer Science Department

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
- Communicated feedback to students regarding their project submissions, allowing them to learn from their mistakes and improve upon their games' design and gameplay in future deliverables

SKILLS

- **Languages**: C, C++, C#, Python, JavaScript
- **Technologies:** Unity, Angular, Node.js
- **Software**: Linux, Windows, Jira, Git, Microsoft Visual Studio,