NIGEL CHARLESTON

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Game Portfolio: https://nigelcharleston.dev/

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EDUCATION

University of Michigan – Ann Arbor, MI (GPA: 3.264/4.000)

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

SKILLS

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

EXPERIENCE

Qualcomm – Camera Software Team, Redford, MI (Remote)

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 software
- 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 instant 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

WolverineSoft Studio – Ann Arbor, MI + Remote

AI Programmer – Io (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

University of Michigan – Electrical Engineering and Computer Science Department

Grader for EECS 494 – Computer Game Design and Development *January 2020 – May 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

University of Michigan, Ann Arbor, MI

Gameplay Programmer – The Magic Hat (5 Developers) *October 2019 – December 2019*

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