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Nicolas Williams

Education

University of Michigan - Ann Arbor, MI   April 2020

- B.S.E. Computer Science Engineering
- Coursework in:
    - Data Structures & Algorithms
    - Linear Algebra
    - Optimization Methods
    - Operating Systems
    - Video Game Development
    - Computer Organization
    - Discrete Mathematics
    - Video Games in Education

Projects Portfolio: NicolasDWilliams.github.io

Miner Mayhem   October 2018 - Present

- Adhering to an iterative development cycle based on frequent playtesting to rapidly implement and refine game mechanics
- Utilizing the project management tool HacknPlan to identify core features and ensure timely progress
- Entered title in course showcase and plan to continue development for a spring 2019 release

Dante's Descent   Fall 2018

- Worked with a multidisciplinary team consisting of an artist, audio engineer, and another programmer at a local game jam to create the title in under 48 hours
- Created a minimum viable product for the title to assess the viability of the core design and mechanics

Thread Library Implementation   Fall 2018

- Collaborated with a group to build a C++ thread library capable of implementing basic threads, mutexes and condition variables
- Utilized synchronous and asynchronous interrupt handling to coordinate thread concurrency in a uniprocessor environment

Experience

Student Instructor for EECS 494 - Video Game Development   January 2019 - Present

University of Michigan

- Give guidance and feedback on student games through playtesting sessions, office hours, and graded submissions
- Occasionally give lectures covering various concepts of game design and ways to utilize C# and the Unity game engine for game development
- Responsible for outreach to student organizations and faculty to enrich the game development program at the University

Software Lead   January 2017 - May 2017

Michigan Engineering: Electronics for Atmospheric and Space Measurements

- Worked with a multidisciplinary team to construct and launch an Arduino controlled weather balloon carrying atmospheric sensors to record measurements within the troposphere
- Debugged hardware issues through sensor unit testing and payload regression testing

Skills

- Proficient: **C++, C#, C, Shell Scripting**
- Basic: **Lua, Python, Verilog HDL**
- Tools: **Unity, Git, Blender, gdb, Vim**

Extracurricular Activities

- Member of the International Game Developers Association Ann Arbor chapter
- Member of the game development student organization WolverineSoft
- Sidney J and Irene Shipman Scholar at the University of Michigan