Nicholas R. Hamilton

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Education

Michigan Technological University, Houghton, MI
B.S., Computer Science   **Expected Graduation: December 2019**
Cumulative GPA: 3.9, Department GPA: 4.0
Honors: Dean's List (x2)

Project and Related Experience

Husky Game Development Enterprise   **January 2017 - Present**
Worked cooperatively on a team developing a video game in Java.
- Develop a new game engine from the ground up, using the Java programming language
- Communicate with a team using GitHub, Slack, Taiga, and Google services
- Draw 2D artwork
- Collaborate using Scrum and Agile development processes

Self Study   **2007 - Present**
Java and C++ for work with:
- Game Development
  - 2D video games for the PC
  - OpenGL and GLSL shaders for rendering
- Machine Learning
  - Artificial neural networks and genetic algorithms
  - Optical character recognition
- Procedural Terrain Generation
  - Perlin and value fractal noise
  - Procedurally generate 2D and 3D landscapes and heightmaps
- Physics Simulations
  - 2D rigid body physics
  - 3D N-body gravity simulations

Work Experience

Michigan Technological University, Houghton, MI   **September 2016 - Present**
Registrar Assistant
- Assist with clerical duties
- Add and drop students' classes
- File confidential documents

Century High School, Rochester, MN   **September 2015 - June 2016**
Tutor
- Assisted students in learning a number of subjects, including:
  - Computer Science
  - Mathematics
  - Physics