# Nicholas R. Hamilton

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## **EDUCATION**

Michigan Technological University, Houghton, MI

Ph.D., Computer Science

GPA: 4.00

January 2020 - Present

**Expected Graduation: May 2023** 

September 2016 - December 2019

Michigan Technological University, Houghton, MI

**B.S.**, Computer Science

**Minor, Mathematical Sciences** 

Department GPA: 4.00 Cumulative GPA: 3.78

Recipient of seven Dean's List honors, member of Upsilon Pi Epsilon honor society

#### **WORK EXPERIENCE**

#### **Graduate Research Assistant**

May 2020 - Present

Michigan Technological University, Houghton, MI

- Focusing on machine learning and computer vision
- Researching augmentation methods for object detection

### **Graduate Teaching Assistant**

December 2019 - May 2020

Michigan Technological University, Houghton, MI

- Graded student work in multiple courses
  - Proctored in-person and online exams

### **Full Stack Developer Intern**

**May 2019 - September 2019** 

IBM, Rochester, MN

- Worked in Agile, collaborative environment with daily Scrum meetings
- · Developed significant portion of tool for migrating customers to IBM's latest version of WebSphere

### **Computer Science Learning Center Coach**

September 2018 - April 2019

Michigan Technological University, Houghton, MI

- Taught students material from various courses including discrete math, data structures, Java, and C
- Assisted students with homework and studying for exams

# **COMPUTER SKILLS**

Proficient in software design and development, Linux, concurrent computing, and databases

## Languages and Libraries

• x86 • C • C++ Java JS • Python • C# MySQL • HTML • OpenGL • OpenAL • SDL2 • NumPy • Unity3D GLFW Keras • Node.js iQuery

## PROJECT AND RELATED EXPERIENCE

#### **Personal Projects**

January 2007 - Present

14 years of C, C++, and Java for work with projects including:

- Machine learning including optical character recognition, computer vision, text generation, and deep learning
- Physics simulations including 2D rigid body physics and 3D gravity simulations
- Procedural generation including texture generation and terrain generation

### **Husky Game Development Enterprise**

January 2017 - December 2018

Michigan Technological University, Houghton, MI

- Developed cross platform 3D game engine using Java and OpenGL
- Used GitHub, Slack, Taiga, and Google services for team communication
- Collaborated using Scrum and Agile development processes