Nicholas R. Hamilton

(507) 993-5105 | nrhamilt@mtu.edu | nrhamilton.com

EDUCATION

Michigan Technological University, Houghton, MI January 2020 – December 2022
M.S., Computer Science
GPA: 4.00

Michigan Technological University, Houghton, MI September 2016 – December 2019
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

Software Developer June 2023 – Current
Epic Systems Corporation, Verona, WI
- Automated Claims Filing
  - Implemented automated retrieval of over 20,000 Medicare claims weekly using web-based REST API
  - Developed parsing logic in M to transform complex, hierarchical data into internal database structure
  - Built validation framework for JSON data to detect duplicates, verify correctness, and match patient records
  - Eliminated customer need for manual download and processing of large monthly files
- Standardized Coverage Import
  - Collaborated with customer-facing teams to design simplified file formats for coverage data
  - Developed standardized data model for in-house database to ingest custom file formats for coverage information
  - Extended visual workflow editor to support mapping file fields to concepts in eligibility and assignment
  - Improved legacy data structures to accurately store patient enrollment details of over 100 customers

Graduate Research Assistant May 2020 – May 2023
Michigan Technological University, Houghton, MI
- Focused on machine learning and computer vision
- Researched computer vision in flood modeling and augmentation methods for object detection

Full Stack Developer Intern May 2019 – September 2019
International Business Machines Corporation, Rochester, MN
- Worked in Agile, collaborative environment with daily Scrum meetings
- Developed significant portion of customer-facing WebSphere version migration tool

RELATED EXPERIENCE

Personal Projects January 2007 – Present
C, C++, Java, and Python for work with projects such as:
- AI including computer vision, chess programming, text generation, and deep learning
- Physics simulations involving fluid dynamics, gravity, and rigid bodies
- Procedural generation of planets, terrain, and textures

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