

Mason Hawver

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Education

University of Minnesota - Twin Cities, College of Science and Engineering Minneapolis, MN
B.S. Computer Science Anticipated May 2025
M.S. Computer Science Anticipated May 2026

Completed Coursework: Linear Algebra, Multivariate Calculus, Discrete Math, Statistics, Algorithms and Data Structures, and Advanced Programming.

Anticipated Coursework: Computer Vision, Real Time Embedded Systems, Robotics, Machine Learning Fundamentals, and Operating Systems.

GPA: 4.0

Projects

Facial Recognition with Eigenfaces, Final Project for Linear Algebra December 2022

As part of a team project, a facial recognition system was designed using eigenfaces, a dimensionality reduction technique. Worked on cleaning data, extracting features using singular value decomposition, and training a model using support vector machines. Achieved a 85% f1-score and presented our results to class.

Femto - Game Engine, Independent Project May 2022

Developed the architecture for a game engine based around an entity component system. Worked on creating serializable scenes, scripting support, a resource manager, and a gui. Utilized modern C++ and the libraries Entt, Imgui, and Raylib for the core entity component system, the gui, and the rendering engine respectively. The Engine has been tested once in the GMTK game jam.

Genetic Learning for Self Driving Cars, Independent Project August 2020

Created a self driving car simulation with genetic learning algorithms. Implemented a basic physics simulation for cars and a neural network model to train. Trained and Evaluated the model using genetic learning techniques. Documented the results and merged suggested changes.

Skills

Proficient: Python (Numpy, Scikit-learn), C++ / C, Java, Lua, Git, Bash, and Unit Tests

Basic: Javascript (React, Node, GraphQL), SQL, HTML / CSS, and OpenGL

Soft Skills: Hard Working, Adaptability, Communication, Problem Solving, Independence, and Motivation

Experience

UMN Housing & Residential Life, Facilities Employee Minneapolis, Fall 2022

Completed responsibilities while collaborating with co-workers to maintain a well-functioning residence hall.

Self Managed, Lawn Care Service St. Louis, March 2018 - August 2022

Cooperated with clients to maintain and improve their lawn. Managed expenses and gear for optimal operation.