

Madi Vanasse

They/Them | vanas059@umn.edu | [LinkedIn](#)

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FORMAL EDUCATION

Bachelor of Computer Science, Expected May 2023

College of Science and Engineering, University of Minnesota - Twin Cities, Minneapolis, MN

Relevant Coursework: Virtual Reality & 3D Interaction | Programming Interactive Computer Graphics & Games | Fundamentals of Computer Graphics | Introduction to Artificial Intelligence | User Interface Design, Implementation, & Evaluation | Applied Linear Algebra | Game Design

TECHNICAL EXPERIENCE AND PROJECTS

Programming Languages: C++/C, Java, Python, C#, Typescript, OCaml

Software/Tools: Unity, Github, Autodesk Inventor, Solidworks, Google Workspace, Adobe Illustrator

Teaching Assistant, *University of Minnesota*, Minneapolis, MN January 2023 - Present

- Assisting Evan Suma Rosenberg for their class “Programming Interactive Computer Graphics & Games.”
- Hosts office hours multiple times a week in which students can ask questions and receive help on homework assignments.
- Answers homework questions on the class forum.

D&D in Virtual Reality, *Project* November 2022 - December 2022

- Used Unity to create a base for a large-scale Dungeons and Dragons interactive game.
- Implemented working UI menus to allow the player to change maps and quit the program using a laser pointer attached to the player’s right hand.
- Added a set of basketball-size dice objects to toss around the scene with realistic physics.
- Attached a teleportation system to the player’s left hand, allowing quicker navigation of the scene.

Raytracer, *Project* January 2022 - February 2022

- Wrote 500+ lines of code from scratch in C++ to create a simple raytracer program.
- The program reads a scene description in from a file and uses ray casting to determine the appropriate color to store in each pixel of the output image.
- The rendered output image is a file in ASCII PPM format.

AFFILIATIONS

Tau Beta Sigma - Alpha Iota - Historian, Service Committee Chair, Member November 2019 - Present

University of Minnesota Marching Band - Clarinet Player August 2019 - Present

First Year Leadership Institute November 2019 - April 2020