

Brett Schumacher

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<https://theshoes.itch.io/>

EDUCATION

Bachelor of Science in Computer Science, Astrophysics Minor Expected May 2023

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

GPA: 4.0 – University Honors Program

Relevant Completed Coursework: Alg. & Data Structures, Adv Programming Principles, Discrete Structures of Computer Science, Math Methods for Physicists

Fall 2021 Coursework: Machine Architecture & Organizations, Animation & Planning in Games, Applied Linear Algebra, Analytical Mechanics

Spring 2022 Coursework: Program Design & Development, Fundamentals of Computer Graphics I

RESEARCH EXPERIENCE

UROP (Undergraduate Research Opportunity Program), UMN Summer 2021

Under guidance of Professor Evan Suma Rosenberg

- Developed a dynamic framework for the creation of Virtual Reality environments, allowing them to rescale automatically to fit a user's physical space.
- Utilized Unity Engine to develop the framework
- Submitted a poster showcasing framework to the UMN Digital Conservatory
 - <https://conservancy.umn.edu/handle/11299/223271>

Research Assistant, UMN Computer Science and Engineering November 2020 – Present

Professor Evan Suma Rosenberg's Illusionengineering Research Lab

- Developed a Virtual Reality application to increase awareness of social distancing using the Unity engine, submitted and accepted to the IEEE VR 2021 conference.
 - <https://ieeexplore.ieee.org/document/9419275>

Research Assistant, UMN Computer Science and Engineering December 2019 – November 2020

Under Professor Maria Gini on the development of a music station chatbot for the National Association of Broadcasters PILOT Innovation Challenge.

- Awarded funding to create chatbot that could interact with radio show listeners
- Implemented much of the logic of chatbot responses, especially for inquiries about playlist information using the Mindmeld chatbot framework
- Assisted in implementation of a frontend interface for the chatbot through use of Angular

HONORS/AWARDS

Industrial Affiliates Council Access Scholarship

Fall 2021 – Spring 2022

UMN Gold Scholar

2019 – Present

College of Science and Engineering Dean's List

Fall 2019 – Spring 2021

National Merit Finalist, Washington High School

Spring 2019

ACTIVITIES

Member, UMN Video Game Development Club

Fall 2021 – Present

Member, UMN Society of Physics Students

September 2019 – Present

Member, UMN Music Production Student Group

March 2020 – Present

SKILLS

Programs: Unity Engine, Windows OS, Linux, Microsoft Office (Word, Excel, PowerPoint)

Programming Languages: Python, Java, C/C++, C#, Ocaml