# Rishi Rallapalli

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#### **EDUCATION**

# University of Michigan | Ann Arbor, MI

College of Engineering – B.S.E. in Computer Science

*Aug 2021 – May 2025* 

College of LSA – Minor in Japanese

- GPA: 3.828
- Relevant Coursework: Data Structures (EECS 280), Data Structures & Algorithms (EECS 281), Database Management Systems (EECS 484), Computer Organization (EECS 370), Programming Paradigms (EECS 390), Web Design, Development, and Accessibility (SI 339), Discrete Math (EECS 203), Linear Algebra (ROB 101), Technical Communication for EECS (TCHNCLCM 300)

#### **GAME PROJECTS**

#### **Heart Heist**

Co-Creator Jan 2022 – Present

- Leading the level and interactables implementations for a **3D** *Metal Gear Solid*-inspired game project built on the **Unity engine**
- Collaborating with professional AAA game developers while utilizing Trello boards, Notion, and Plastic SCM version control to manage the project
- Designed and engineered interactables using C# that add fun variability within the levels
- Constructed 3D environment art assets using Blender 3.0 to make levels visually appealing

## **Death Tennis**

Co-Creator Jun 2019 – Oct 2020

- Launched a 2D *Super Smash Bros.*-like **fighting game** built on the **GameMaker Studio 2** engine on Itch.io which accumulated 37 downloads worldwide
- Designed and programmed mechanics, utility-based enemy AI, physics, animation states, shaders, and an audio controller from scratch in GameMaker Language (GML)

## ACADEMIC PROJECTS

# **Stock Exchange Simulator**

EECS 281 Feb 2023

- Developed a program that simulates stock market transactions based on an input list of buyers, sellers, timestamps, stock quantity, and price
- Utilized STL **priority queues** with **comparators** and a **state machine** to develop an efficient algorithm within **time and memory constraints** in C++ that determines the most profitable time to sell stocks

## Piazza Post Classifier

EECS 280 Dec 2022

- Implemented a naïve **Bayes' machine learning algorithm** in C++ that allows a classifier to learn how to categorize posts with 87% accuracy on the online class forum Piazza by topic based on the content of the post
- Utilized a BST to efficiently store and access the data needed to calculate the necessary probabilities

## **ACTIVITIES & AWARDS**

Okinawa Peace Scholarship – Awarded a \$7,000 scholarship to study abroad with a host family in Japan for 6 weeks

**Tennis** – Placed second in two regional tennis tournaments

Guitar – Avid learner taking private lessons. Interested in joining or starting a rock band

#### **SKILLS**

Languages: C, C++, C#, GML, Python, Julia, MATLAB

Web Development: React Native, HTML, CSS, JavaScript, Bootstrap

Game Development: Unity, GameMaker Studio 2, Utility-based AI Agents, Blender 3.0, GLSL, Project Management

Adobe Creative Cloud: Photoshop, Premiere Pro, After Effects, Media Encoder, Animate, Dreamweaver