

# Rishi Rallapalli

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## EDUCATION

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### University of Michigan | Ann Arbor, MI

College of Engineering – M.S.E. in Computer Science (GPA: **4.00**)

Aug 2025 – May 2026

College of Engineering – B.S.E. in Computer Science (GPA: **3.87**)

Aug 2021 – May 2025

College of LSA – Minor in Japanese

Relevant Coursework: *Data Structures & Algorithms, Web Systems, Software Engineering, Database Management Systems, Conversational AI, Computer Networks, Compilers, Computer & Network Security, Computer Vision*

## WORK EXPERIENCE

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### DCS Corporation

Software Engineer

May 2024 – Present

- Served as the main POC and engineer for the scenario building of a **successful experiment** to train DoD personnel as well as test/simulate features for **Army ground vehicles**
- Used **C++** and **Blueprints** to construct scenarios and implement components in **Unreal Engine** that collect and stream participant performance data in real time through **Apache Kafka** events
- Integrated **RPCs** and **replication** to designate roles and maintain consistency between multiple running clients
- Leveraged **Docker** containers and **Ansible** orchestration to deploy builds across Linux and Windows platforms

### Heart Heist

Technical Game Designer, Level Designer

Jan 2022 – Present

- Leading the level and interactables implementations for a **3D Metal Gear Solid-inspired game** project in **Unity**
- 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** to make levels visually appealing

### Death Tennis

Gameplay Programmer, Game Designer, AI Engineer

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

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### Insta485

Web Systems

Sep 2024

- Developed a fully functioning **Instagram clone** web app using **Python, Flask, React,** and **SQLite**
- Implemented support for **secure** account creation and sign-in with **salted password hashing**
- Utilized **sessions** to enable posting, commenting, liking, following, and changing account information
- Built the application using **client-side dynamic pages** and **REST API** for features such as infinite scroll

## PUBLICATIONS

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Lauren Grant, Rishi Rallapalli, *et al.* Crew Optimization & Augmentation Technologies (COAT) Data Validation Pilot Technical Report. July 2024. DCS Corporation.

## SKILLS

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**Languages:** C++, C#, C, Python, GML, SQL, MATLAB

**Game Development:** Unity, Unreal Engine, GameMaker Studio 2, AI, Blender, GLSL, Project Management

**Web Development:** HTML, CSS, JavaScript, Bootstrap, React, Flask

**Adobe Creative Cloud:** Photoshop, Premiere Pro, After Effects, Illustrator, Animate, Dreamweaver