

# RIYA KANANI

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## EDUCATION

**Carnegie Mellon**, Master of Entertainment Technology

Exp. May 2027

**University of Maryland**, Bachelor of Science

May 2025

Computer Science and Immersive Media Design

GPA: 3.85

## SKILLS

Software: Unity Engine, Adobe Suite, Microsoft Office Suite, Cinema4D, Maya, Figma,

Languages: Java, Python, Linux, C, MIPS Assembly, b, Ruby, Rust, Latex, C#, C++, JavaScript, HTML, SQL

## WORK EXPERIENCE

**Cortina Productions**

McLean, VA

*Software Engineer Intern*

Jun 2025 – Aug 2025

- Built Unity front-end experiences driven by a producer-facing backend interface, using custom APIs to dynamically load assets and scene data.
- Collaborated in a multi-developer Agile environment using Git version control (Bitbucket) and SourceTree for branch management, code reviews, and CI/CD pipeline integration.
- Integrated Nuitrack/Orbbec gesture tracking APIs with Unity FBX avatars to mirror real-time user movement
- Developed boundary detection systems that monitor physical positioning and trigger timeout protocols when users step out of the interactive zone utilizing C#.
- Gained full-stack familiarity with the **Unity** development pipeline, including render pipelines (URP/HDRP), asset management, and deployment workflows.

**University of Maryland**

College Park, MD

*Teaching Assistant: Introduction to Immersive Media*

Aug 2023 – May 2024

- Provided debugging assistance for **Unity Engine** projects and C# scripts twice a week in class and office hours.
- Guided students in transforming ideas into successful projects and provided constructive feedback on weekly assignments to support academic and professional growth.

## PROJECTS

**Crimson Premonition**

College Park, MD

*Video Game*

Aug 2023 – Dec 2023

- Learned effective human computer interaction when designing a video game for intuitive play
- Utilized tools such as gestural recognition, particle systems, computer vision, and networking in Unity Engine

## ACTIVITIES

**Girls Who Code**

College Park, MD

*Web Developer and Teaching Assistant*

Feb 2023 – May 2025

- Contributed to the website development and maintenance in **weekly meetings**, utilizing tools including Figma, HTML, and CSS.
- Provided instructions in python fundamentals to middle and high school aged girls twice a semester.

## RESEARCH

**University of Maryland**

College Park, MD

*Undergraduate Researcher:*

Jun 2024 – May 2025

[SuperFoldAE](#) & [ConSOLAE](#)

- Designed and implemented a supervised autoencoder model with auxiliary reconstruction tasks to enhance model generalization and stability for protein fold prediction, achieving an **88.73% accuracy**.
- Improved out-of-distribution performance on SCOP 2.06 from **22.63% → 54.22%** Top-1 accuracy, demonstrating significant advances in generalization
- Leveraged a high-performance computing cluster for efficient model training and data processing.
- Introduced contractive **regularization**, **Smooth L1 reconstruction**, and a **deeper encoder-decoder structure** to stabilize training and capture fine-grained structural features.

**NASA Ocean Project**

College Park, MD

*Researcher*

Aug 2023 – May 2024

- Authored C# scripts to simulate phytoplankton responding to camera input data in Unity Engine.
- Played a key role in weekly brainstorming sessions to create an effective method to represent phytoplankton across various zoom scales, ensuring visual cohesion and engaging the user.