Samay Rishit Shah

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• Rochester, NY (open to relocation)

OBJECTIVE

Seeking a co-op/internship Available Summer 2026.

COMPUTING EDUCATION

Bachelor of Science, Game Design and Development **May '26**

Rochester Institute of Technology, College of Computing and Information Sciences | Rochester, NY

- GPA: 3.65 and Dean's List
- Awarded RIT's Founders International Scholarship
- On Campus Job: Customer Service | Food preparation | Cleaning, The Ritz, September 2024-Present

TECHNICAL SKILLS

Game Engines and APIs | Godot, Unity, Unreal Engine, DirectX, ImGui
Languages | C#, C/C++, HLSL, JavaScript, TypeScript
Tools | Git, Photoshop, Figma, Blender, Maya, Substance Painter, ZBrush
Web Stack | MERN stack (MongoDB, Express, React, Node)
Design Knowledge | Gameplay Systems, Player Feedback Loops, Balance & Tuning, Iterative Prototyping

PROJECT EXPERIENCE

Technical Artist **Dec '25 - Dec '25**

Arduino Art Project | Academic Project

C++ | Unity | C# | Shader graph | Effect graph | Multi threading

- Optimized serial communication and multi-threading between Unity and Arduino, enhancing project responsiveness by reducing latency effectively
- Engineered a kaleidoscope effect shader with Unity's Shader Graph and Effect Graph to create compelling artistic particle visualizations

Technical Artist **Dec '25 - Dec '25**

Spöder | Academic Project

C++ | JavaScript | HTML Canvas

- Created a flappy bird style game with animated sprites on the Arduino and rendered it on a 16x2 character LCD
- Crafted an efficient mini pipeline using HTML Canvas and JavaScript, translating sprite animations designed in Piskel into byte array values, facilitating the rendering of animated sprites as custom characters on an LCD display

Programmer **Nov '25 - Dec '25**

PS5 breakout | Academic Project

C++ | Proprietary Graphics APIs

- Engineered an extensible breakout clone utilizing C++ and proprietary PS5 graphics libraries
- Accelerated rendering performance through implementing instanced rendering

Lead Programmer **Sep '25 - Dec '25**

Deck of Ruin | Academic Project

Godot | C# | Shaders

- Developing a modular, node-based enemy AI and encounter system with scalable and reusable combat behavior for a rogue-like deckbuilding game
- Engineering a flexible card system supporting dynamic effects, conditional enemy targeting, and stackable modifiers, with designer-friendly interfaces to create new cards without code
- Designing and implementing a robust status effect system with customizable modifiers to enhance gameplay depth
- Fixed memory leaks, and created utility shaders to blur the background, and replace the colors of sprites
- Collaborating with a 3-person team to build a rogue-like deckbuilder in Godot, applying agile practices and iterative design

Technical Artist **Apr '25 - Apr '25**

Game Character Model | Academic Project

Unreal Engine | ZBrush | Maya | Substance Painter

- Crafted a game-ready 3D character inspired by a Tamagotchi aesthetic, utilizing ZBrush for high-poly sculpting, Maya for retopology, and Substance Painter for PBR texturing
- Executed animation retargeting and integrated ragdoll physics within Unreal Engine

Designer and Developer **Feb '25 - May '25**

Revelations Mystery Game | Academic Project

JavaScript | MERN Stack

- Developed an interactive full-stack puzzle web app enabling users to solve code-based challenges, share collaborative notes, and authenticate securely via Google
- Prototyped and refined puzzle mechanics based on user research, interviews, and usability testing to improve engagement.
- Collaborated in a 5-person team using GitHub and agile workflows (standups, sprint planning, code reviews) to deliver features on time and ensure code quality

AI Game Play Programmer **Feb '25 - May '25**

Herding Game AI Prototype | Academic Project

Unity | C#

- Implemented a Goal-Oriented Behavior (GOB) model and flocking algorithms to drive AI character movement and decision-making
- Architected modular, reusable AI behavior systems using ScriptableObjects, enabling scalable and designer-friendly workflows
- Designed and exposed tunable gameplay parameters to control mob behavior variability, enhancing replayability

Graphics Programmer **Jan '25 - Apr '25**

DirectX Rendering Engine | Academic Project

C++ | DirectX 11 | ImGui | HLSL

- Developed a custom real-time rendering engine with support for physically based rendering (PBR), shadow mapping, and post-processing effects
- Authored a suite of GLSL/HLSL shaders for dynamic lighting, PBR materials, and screen-space effects including box blur, chromatic aberration, and custom animated visuals
- Built an in-engine UI using ImGui to visualize render pipeline stages and provide real-time control over scene composition, entity properties, materials, and rendering settings