Naitik Poddar

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PROFILE

I'm an asipriring game programmer and software developer with a passion for developing engaging experiences that could potentially impact large communities. I'm highly motivated to break into the games and tech industry, continuously learn new technologies, and refine my skills in a professional environment.

SKILLS

Programming Languages: C# | Python | C/C++ | GLSL

Game Development: Unreal Engine 5 (C++) | Unity | Phaser.JS | Game Design | Graphics/Shader Programming

Web Development: Javascript | HTML | CSS | WebGL | Typescript | React | Node.js

Design and Tools: Git | Perforce | Figma | Miro | Agile/Scrum Framework

Data Analysis: Stata | R/RStudio

PROJECTS

Tacit, *Goyangi Games (Capstone Project) – Unreal Engine 5 Online Multiplayer Game (Planned Steam Release)*
- Developed core **multiplayer** systems in **C++**, leveraging **Unreal Engine 5 networking** for seamless online gameplay.
- Implemented a **real-time spellcasting system** using **Gameplay Ability System (GAS)** for scalable mechanics.
- **Optimized** performance with **Unreal Insights** and **Network Profiler**, improving replication and latency.

"Shooter? I Hardly Know Her", *(Capstone Project) – Unity3D Online Multiplayer Game (Planned Steam Release)*
- Developed core gameplay systems in **C#**, including **player movement, enemy AI, and animation programming**, optimizing performance for **smooth online play**.
- Designed and implemented a **weapon spawner and swapper system**, enabling strategic mid-match loadout changes; game received an **8.3/10 average rating** across **30 closed playtest sessions**.
- **Trailer** available here

Automanora (Game)
- Engineered core gameplay features, including **player movement** and an **intuitive inventory system**, in **Unity3D using C#.**
- Enhanced **player experience** by **optimizing saving/loading functionality by 20%** and adding polished visual effects.
- Collaborated in a team of five to deliver a cohesive, award-winning project, earning the **"Best Aesthetic" award** as voted by peers for its standout design.

ZDOC (Game)
- Co-created "ZDOC" during an entry level Game Jam in Summer 2022, a **top-down 2D game** in Unity, implementing C# scripts for **enemy tracking, player power-ups, and core mechanics like movement and shooting**.
- Published the game on itch.io , garnering enthusiastic feedback from both fellow participants and reviewers, averaging **4.7 star reviews** from around **100 participants**, highlighting its engaging gameplay and mechanics.

Conversational Procedural Content Generation with LLMs (Python, Phaser),
Research Project – FDG 2025, PCG Workshop (Avaiable on the ACM Digital Library) & AIIDE 2025 (Ongoing)
- Engineered **interactive map generators and prototypes** to facilitate and analyze LLM interaction, significantly contributing to a research paper accepted at the FDG 2025 PCG Workshop.
- Currently developing a novel procedural content generation tool leveraging LLMs, focusing on innovative tilemap representation techniques and **optimized context-driven selection generation.** Targeting submission to the AIIDE 2025 conference.

EDUCATION

Bachelor of Science (B.S.) - Computer Science: Game Design, *University of California, Santa Cruz* 09/2021 – 08/2025
Double Majoring in (B.A.) Economics Santa Cruz, United States
Current Standing: Senior
Expected Graduation: August 2025
- **Relevant Courses Completed**: Game Development Experience, Game Design Studio, Game Systems, Rapid Prototyping, UI & UX Design, Introduction to Computer Graphics, Data Structures and Algorithms, Computer Systems and Assembly Language, Computer Systems and C Programming, Programming Abstractions in Python.
- **Collaborative Research Experience in Engineering**: Conducting ongoing **research** on **procedural content generation (PCG)** using noise, wave function collapse, and **LLMs for mixed-initiative systems**. Published a workshop paper on LLM-driven PCG and developing advanced techniques for tile-based world generation. Current work focuses on window selection and advanced context specific approaches to enhance LLM integration in PCG pipelines

EXTRA-CURRICULAR EXPERIENCES

Competitive Esports Director, *Slug Esports at UCSC* 2022 – present
- Led and managed multiple competitive esports teams across various titles, driving top divisional and national tournament placements.
- Strategized team development, fostering player growth, performance analysis, and competitive readiness.
- Coordinated large-scale community events, collaborating with officers and members to enhance engagement and organizational success.