Naitik Poddar

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PROFILE

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

SKILLS

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

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

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

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

Data Analysis: R/RStudio │ Stata

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, *Research Project – FDG 2025, PCG Workshop (ACM Publication Pending)* 🔗
- **Co-authored** a paper on LLM-driven procedural content generation, **designing two prototypes** in Phaser to test conversational interactions.
- Engineered and validated TinyTownQA, a dataset with **31 procedurally generated maps** and **642 questions**, benchmarking LLM accuracy in spatial reasoning with results up to **97% accuracy**, while planning future extensions using **fine-tuned models** and a **window selection approach to enhance PCG interactions.**

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.

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 fine-tuned models and window selection approaches to enhance LLM integration in PCG pipelines.