Naitik Poddar

naitikpoddar145@gmail.com Website LinkedIn Github

PROFILE

Enthusiastic and driven college student pursuing Computer Science with a keen interest in Game Development and Software Development. Eager to leverage my hands-on coding experience to solve complex challenges, problem-solving and contribute to impactful projects. Confident in my ability to collaborate and innovate, poised to make a meaningful contribution to your team's success.

EDUCATION

Bachelor of Science (B.S.) - Computer Science: Game Design 09/2021 – present
University of California, Santa Cruz Santa Cruz, United States
Double majoring in B.A Economics
Current Standing: Senior

- **Relevant Courses Completed**: Game Development Experience, Game Technologies, Game Design Studio, Game Systems, Rapid Prototyping, UI & UX Design, Foundations of Game Design, Introduction to Computer Graphics, Fundamentals of Compiler Design, Data Structures and Algorithms, Computer Systems and Assembly Language, Computer Systems and C Programming, Applied Discrete Math, Programming Abstractions in Python, Beginning Python.
- **Collaborative Research Experience in Engineering**: Conducted research and developed projects on procedural content generation (PCG) using noise, wave function collapse, and LLMs for mixed-initiative systems. Published workshop paper on mixed-initiative PCG systems. Currently advancing research on **LLM-based PCG in tile-based worlds**, with ongoing work focused on expanding the integration of language models in procedural generation pipelines.

SKILLS

Game Development — Unity | Phaser.JS | Game Design

Programming Languages — C# | Python | C/C++

Web Development — Javascript | HTML | CSS | Typescript | React | Nose.js

Design and Tools — Git | Figma | Miro

Data Analysis — R/RStudio | Stata

PROJECTS

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.

LLM-Based Mixed-Initiative Tile Generation

- Designed and implemented a Phaser-based tool utilizing the Google Gemini 2.0 API to **enable procedural content generation.**
- Engineered a workflow that **converts tile data into ASCII, queries an LLM** to generate updates, and **integrates the results into new map tiles.** Actively refining the system to improve performance and support ongoing research for potential publication.

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.

Livance (Web App)

- **Collaboratively** contributed to developing the frontend of "Livance," a social health monitoring platform, utilizing **Next.js (React framework)**, **HTML5, and CSS3** within a team setting.
- Overcame challenges as a first-time hacker, focusing on **frontend development** to implement **health event logging and display functionalities**, demonstrating adeptness in React and effective collaborative skills.

EXTRA-CURRICULAR EXPERIENCES

Undergraduate Research Volunteer
GUII Lab at UCSC. Worked with PHD candidates and gathered data for the development of INSPECT, which is an Interactive Visualization Tool with the ability to generate player journey maps

Competitive Esports Director 2022 – present
Slug Esports at UCSC

- Managed two levels of esports teams across multiple titles; participating in various national collegiate tournaments, while consistently achieving top 4 divisional and national placements.
- Collaborated with officers and members to coordinate large-scale community events.