# **Naitik Poddar**

# **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**

University of California, Santa Cruz

09/2021 – present Santa Cruz, United States

# Double majoring in B.A. Economics

- Current Standing: Senior
  Relevant Courses Completed: Data Structures and Algorithms, Computer Systems and C
  Programming, Assembly Language and Lab, Introduction to Econometrics, Machine Learning for
- Collaborative Research Experience in Engineering: Conducted research and developed projects on procedural content generation (PCG) using noise, wave function collapse, and LLMs for mixedinitiative systems. Continuing work on advanced LLM-based PCG in tile-based worlds with plans to publish findings.

Economics, Game Theory and Applications I, Game Development Studio, Computer Graphics

# **SKILLS**

Javascript, Python, C, C++, C#, HTML, CSS, Git, R, UNIX, Windows, Unity

## **PROJECTS**

#### **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.

#### 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 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  $\mathscr{O}$ , garnering enthusiastic feedback from both fellow participants and reviewers, 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**

#### **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.

## **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