Teo Mendoza

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Portfolio - teomendoza.github.io

Education

Willamette University

Expected Graduation: 2027

B.S. in Computer Science | Minor in Mathematics
GPA: 3.94

Projects

3D Multiplayer Brawler

- Designed the full gameplay loop and system architecture of a multiplayer free-for-all brawler, scoped for Unity with SpacetimeDB as the server authoritative backend, covering game mechanics and technical specifications.

- Designed three distinct playable characters, each with a unique combat identity and complete ability kit consisting of a core attack, three base abilities, an ultimate, and passive traits.

- Implemented a state-driven character control system separating movement and kinematic behavior from action and ability states, enabling clean composition of locomotion, animation, and gameplay logic without state explosion.

- Implemented a custom, server-authoritative physics and collision system supporting generalized convex shapes, using GJK/EPA for collision detection and resolution to ensure stable multiplayer interactions.

- In progress full Unity implementation with SpacetimeDB for server authoritative multiplayer gameplay.

Terminal Fighter – 2D Multiplayer Brawler

- Developed a 2D multiplayer fighting game for LAN 1v1 play, using Godot's multiplayer API with a custom Flask matchmaking server.

- Built core combat systems including responsive movement, ability driven interactions, and fast paced mechanics to create a competitive and skill based player experience.

- Designed and implemented two distinct playable characters, each with a unique combat identity and ability kit consisting of a core attack, two base abilities, and passive traits, tailored for variety and balance in head-to-head play.

- Created an arena emphasizing spacing, positioning, and timing to reinforce fighting game fundamentals within a simple 2D environment.

- Released an open source GitHub repository highlighting the characters, abilities, and design decisions, alongside documentation for how to play the game.

Murder Mystery – Story & Character Design

- Designed a cast of 12 interconnected characters with distinct personalities, roles, and relationships, all woven into a larger cult themed mystery narrative.

- Outlined a rough game concept including exploration, clue finding, dialogue, and dynamic character behavior systems to frame how the story could be experienced as a full game.

- Created promotional TikTok posts showcasing character designs, generating over 10,000 views and 750 likes across multiple posts.

Work Experience

Pedalogical – Project Manager & Backend Developer

- Led a 3 person team developing Pedalogical, an NSF-funded AI driven education platform launching in Spring 2025 with 150 students across multiple courses.

- Coordinated with faculty project lead to translate requirements into actionable tasks, manage workflows, and drive implementation cycles through Agile development practices.

- Contributed to backend infrastructure and systems design, implementing scalable feature redesigns, analytics capabilities, and a database migration from SQL Server to PostgreSQL.

Teaching Assistant – Intro to Game Development In Unity

- Supported 25 students during in class coding demonstrations and project work by clarifying technical concepts, answering questions, and troubleshooting errors.

- Held weekly office hours to provide additional support with debugging, technical problem solving, and feedback on game design ideas for individual and group projects.

- Graded homework and project submissions by assessing code quality, technical correctness, and creative design elements such as mechanic novelty, player engagement, and usability.

Resident Advisor – Willamette University

- Supervised a community of 50 residents and collaborated with staff to support 600 students across the larger housing area.

- Mediated conflicts, enforced university policies, and responded to crises to maintain a safe and accountable living environment.

- Planned and led weekly programs and large monthly events to foster community engagement, connection, and student well being.

Publications

Cordova, L., **Mendoza, T.**, Holmes, S., Megginson, K., Webster, B., & Gregory, D. (2025). Not All Chatbots Teach: Evidence for Pedagogical Design in AI-Assisted Technical Education. ACM SIGCITE 2025 (to be presented, November 2025).

Skills

Game Design: Combat System Design, Multiplayer Game Design, Narrative Design, Character Design

Game Engines & Tools: Unity, Godot, Blender (Animation)

Project & Product Management: Agile & Scrum Development, GitHub Projects

Programming: Rust, C#, Python, GDScript

Backend & Tools: SpacetimeDB, Databases (PostgreSQL, SQL Server), Git/GitHub

Awards

Murdock Science Research Conference – Best Presentation   2024

- Selected as 1 of 12 awardees out of 150 project groups for presenting *Pedalogical*, our NSF-funded research project.