

Seth Laske

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Education

California Polytechnic State University - Pomona
Bachelor of Science, Computer Science – GPA: 3.90

August 2020 - December 2023

Experience

Digital Product Developer Intern

May 2023 – August 2023

[American Greetings – Advent Unity Team](#)

- Engineered a dynamic in-game level designer, to reduce time per stage from 2 hours to 10 minutes
- Customized the basic A* formula by researching special heuristics, creating an automatic testing setup, and finding exit conditions to reach an acceptable average in game time of 1.5 seconds
- Individually designed a puzzle minigame for Advent 2024 as an intern project – includes full gameplay loop, sound effects, difficulty and accessibility options to users
- Implemented a code-based animation routine, to create an immediate feedback loop for users
- Designed new game levels, while updating documentation and organizing playtests for balancing
- Developed modular tutorials and intuitive UIs with the creative team to enhance user experience on mobile and desktop devices

Student Assistant

September 2023 - Present

CPP – Interactive Simulations for Dynamics Education

- Collaborating with the Aerospace Engineering department to create Unity simulations of Dynamic Physics concepts to be used for educational purposes by STEM professors in the CSU system
- Iterated on UI design elements using faculty and student feedback to facilitate learning
- Designed a modular precision ecosystem to develop real time diverse pulley simulations quickly

Projects

[NavMesh Pathfinder](#) – Processing (Java), Solo Dev

September 2022 – December 2022

- Simulated organic steering behavior for rotational and linear movements, utilizing fuzzy logic to predict and avoid collisions with any preplaced or generated walls
- Designed an automatic NavMesh generator to triangulate any map for the agent to traverse
- Implemented optimized pathfinding A*, allowing users to set waypoints for any path in a map
- Used Prim's Algorithm to automatically create traversable procedurally generated mazes

[Branch Battles](#) – Unity, Solo Dev

January 2023 – September 2023

- Designed FSM based NPC behaviors to handle 8 trainable units with unique behaviors and attacks
- Simulated real life army formations through organic group movements and flocking mechanics
- Created modular enemy army controller systems to function within 4 different game modes
- Reduced development time by automating references between save data, the UI, and the player

Jack Black Attack – Unity, 10 Person Team

September 2023 – Present

- Designed a game pitch presentation to present to the GDC club, which recruited 10 developers
- Managing the team using Trello for task creation and Milanote for mood boards and flow charts
- Developing backend inheritance and abstraction to help teach inexperienced members Unity
- Designed procedural generation systems to create random dungeons based on Blackjack gameplay

Skills

Coding Languages – C#, C++, Java, Python

Software – Unity, Git, Github, JIRA

CAD Software – Fusion 360, Solidworks