

Charles Lesser

SOFTWARE ENGINEER AND GAME DEVELOPER STUDENT

+1 (310) 897-3421 | charles.lesser.345@gmail.com | chlesser.github.io | chlesser | chlesser

Education

University of California, Santa Cruz

Santa Cruz, California

BS in Computer Science: Game Design

2023 - Current

- GPA: 3.9 (in progress, expected graduation 2027)

Experience

SET Lab, UC Santa Cruz

Santa Cruz, California

Research Assistant

Oct 2023 - Present

- Researches multi-user VR interfaces for scientific applications in civil engineering and marine science.
- Collaborated with Soga Research Group at UC Berkeley to develop VR prototypes for evacuation simulation.
- Developed multi-user VR games with projectile mechanics and deployed to the Meta Quest Store.
- IRB certified and ran human interactive pilots.
- Published and presented at numerous XR conferences.
- Creates backends for research applications with online data tracking and geolocational play.

Dive n' Surf

Redondo Beach, California

Rental/Repair Specialist

Summer '21, '22, '25

- Inspected, maintained, and repaired scuba equipment.
- Cleaned and filled scuba tanks with compressed air or oxygen enriched air.
- Trained and gave guidance to new employees.

Skills

Programming Languages

C#, Javascript (Three.js, WebXR, Node.js), C++, Java, Python, C, Assembly

Engines

Unity (Mapbox, Photon, OpenXR), Dear ImGui, Unreal, Twine

Game Dev Skills

PGC, Systems Design, Game AI, Multi-user spaces (Photon), Networks, XR Interaction, UI/UX design, Sound Design

Programming Skills

Collaboration (Github), Machine Learning, Data Structures, Algorithms, Computer Architecture, UNIX

Selected Publications

Eye Ball: Gazing as a Dilemma in a Competitive Virtual Reality Game

Michael Lankes, Samir Ghosh, Charles Bishop Lesser, Katherine Isbister

Extended Abstracts of the CHI Conference on Human Factors in Computing Systems, 2024, New York, NY, USA

Projects

Balajong

Balajong was created in 3 weeks as a spoof of the popular indie roguelike Balatro. It uses mahjong mechanics and procedurally generated elements such as card drawing, map generation, and audio stream generation. It won best in class, and third best use of procedural generation. Balajong was created in unity with C#.

Audio Stream Generator

The Audio Stream Generator is a tool for all Unity developers to use, and utilizes procedural generation to create an ambiance stream that keeps the audio of a game interesting and unique.

Arcana

Arcana is a card-battler that played with tarot cards and fixed progression. All game systems are dynamic to allow for future development. This game was made in Unity using C#.

Interests

Water Polo

Water Polo is a way to stay healthy as well as drive my competitive spirit. I play for UCSC's water polo club team.

Tabletop Role-playing Games

Narrative storytelling in TTRPGs has allowed me to expand my creative and design capabilities significantly.

Scuba Diving

Working in a dive shop and becoming PADI rescue certified allowed me to explore the underwater world.