Charles Lesser

SOFTWARE ENGINEER AND GAME DEVELOPER STUDENT

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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.

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.

Mira Costa High School   *Manhattan Beach, California*
Teaching Assistant   *Aug 2022 - Jun 2023*
- Taught students basics of programming and prepared them for the AP computer science tests.
- Programmed the prototype digital hall pass system for Mira Costa High School.
- Led the virtual reality booth at the Mira Costa High School STEM fair.

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	Game AI, Multi-user spaces (Photon), XR Interaction, UI/UX 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

Shattered Wake	Shattered Wake is my current project, a strategy RPG made in Unity and scripted with C#. It implements procedural map generation, data persistence, and modular scripts.
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.