Adi Roitburg

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EDUCATION:

Loyola Marymount University **May 2026**

B.S of Computer Science

Minor in Interactive Games and Immersive Media

- Relevant classes: Data Structures and Algorithms, Algorithms and Analysis, Computer System Organization, Logic and Computer Design, Computer Graphics, Mobile App Development, Artificial Intelligence, Game Design, Game Development
- Overall GPA: 3.74

WORK EXPERIENCE

Computer Science Teacher Assistant **September 2023 - Present**

Loyola Marymount University

- Assisted students with homework and projects for the **Beginner Computer Programming course**
- Helped students learn Unity for the **Game Development course**

Machine Learning Research **June 2025 - August 2025**

Seattle University

- Implemented a neural network using **Python/TensorFlow/PyTorch** to predict DMSO concentration from dielectric measurements
- Simulated dielectric property changes across varying water to DMSO ratios using **GROMACS**

PROJECTS:

Loominary **September 2025 - December 2025**

- Developed a node-based visual editor for **data processing** workflows
- Implemented data transformation nodes including **merge, filter,** and **sort** operation
- Enabled local **creation**, **storage**, and **management** of user projects

Robo Runaway **September 2024**

- Built a parkour game using **Unreal Engine**, inspired by Mirror's Edge
- Implemented **complex movement mechanics** for fast paced gameplay
- Designed core gameplay loop around **exploration** and **resource management**

Gravity **February 2025 - March 2025**

- Developed an endless runner in **Unity** with custom gravity shifting mechanics
- Implemented player **physics**, **obstacle system**, and **power-up** behaviors
- Created all game art and animations using **Aseprite**

Custom Graphics Library **March 2023 - May 2023**

- Built a custom **WebGL rendering engine** inspired by **Three.js**
- Implemented core rendering pipeline components such as textures, lighting, and camera matrices
- Created an **interactive experience** with the engine, where the user flies around space in a spaceship

LMUral **March 2025**

- Developed a collaborative, tile-based drawing application using **Svelte**
- Implemented a real time composition of individual tiles into shared murals, stored in **Supabase**
- Designed workflows for **creating new murals** or **contributing to existing ones**

SKILLS:

Languages: Python, Java, Javascript, C, C#, HTML, CSS, C++
Libraries / Tools: Unity, Unreal Engine, Github, Pandas, NumPy, PyTorch, Firebase, React, Svelte, Terminal, XCode

AWARDS:

LMU Arrupe 4 Year Scholarship, Dean's List (2023, 2024, 2025)