ANTHONY ROSSI

arossi09@calpoly.edu | 831-320-7433 | arossi09.github.io | github.com/arossi09 | LinkedIn

EDUCATION

California Polytechnic State University **June 2022 - June 2026**
Bachelor of Science Degree in Computer Science *San Luis Obispo*

RELEVANT COURSEWORK(* soon to be completed)

Data Structures, Computer Organization, System Programming, Algorithms, Computer Security, Programming Languages, Computer Organization, Object Oriented Programming and Design, Software Engineering, Databases, Software Evaluation, Intro to Computer Graphics, Theory of Computation, Computer Graphics, Distributed Systems, Web Development, Operating Systems*, Binary Exploitation*

PROJECTS

Tape Archive | C Dec 2023

- Developed a tape archive utility in C adhering to the USTAR header format, enabling efficient data storage and retrieval.
- **Implemented functionality to archive files and directories** into a USTAR-compliant format, ensuring compatibility with standard tar utilities.
- **Designed an extraction mechanism** to restore archived files while preserving metadata and directory structures.

CRast - github.com/arossi09/CRast | C Jan 2025 – Apr 2025

- Developing a **3D software renderer from scratch in C**, implementing core rendering techniques without relying on existing graphics APIs like OpenGL or DirectX.
- Engineered a **custom TGA file handling library** that handled image reading and writing processes.
- **Created an OBJ file parser** to load 3D models into a custom data structure for rendering.
- Included graphics fundamentals such as **Z-buffer, texture mapping, Gouraud shading**, and **camera controls/perspective projection**.

Cloud Performance Testing – NerF Studio Model Training | Python/Bash March 2025 – May 2025

- Evaluated performance metrics of NerF Studio model training across multiple cloud infrastructures including **Google Cloud, AWS, and Lambda Labs**
- Configured **cloud environments**, installed and optimized necessary software, and automated workflows using **Python and Bash scripts**
- Analyzed computation times, resource utilization, and training efficiency to identify performance bottlenecks and ease of use among different platforms

Whoops N Hoops - arossi09.github.io/whoopsnhoops.html | C++/OpenGL May 2025 – Present

- Developed a first-person arcade drone simulation using OpenGL.
- **Implemented core graphics fundamentals** including lighting, obj loading, texture mapping, and Bezier camera curves.
- Implemented realistic drone physics which includes full controller support, quaternions for drone orientation, AABB collision detection, and drone trick detection.

WORK EXPERIENCE

Sprouts - Cashier June 2025 – Oct 2025

- Worked as a cashier attending to customers' requests, providing good customer service.
- Collaborated with team members to maintain store operations during peak hours.

SKILLS SUMMARY

- Languages: C, OpenGL, C++, Java, Python, Racket, HTML, CSS, RISC-V, SQL, GLSL
- Software: AWS, Linux, Unix, MacOS, Windows