

# ELIO SASSO | RESUME

Software Engineer


**Status:** M.Sc. Computer Science

**Fields:** Software Engineering, Computer Graphics, Game development

**Tech:** C++/C, Go, Python, HLSL/GLSL, GCP/AWS, Docker, Vulkan, OpenGL, CMake, Bash, Git.

**Activities:** Global Game Jam, Volleyball, Photography.

Lausanne, Switzerland

Helium5t 

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## SUMMARY

Performance focused engineer with multiple years of experience across the fields of security as well as graphics. My projects ranged from highly focused research to large scale development on systems used by millions. I am someone that is not afraid of exploring new technologies or avenues of improvement and a self starter that finds meaningful work to push forward with the team.

## PROFESSIONAL EXPERIENCE

**Software Engineer - Security** - Snap Inc.

2022 - present

- Joined the team responsible for improving the defenses against abuse on the platform.
- Led multiple service initiatives to optimize stability and security. Made refactors across the full stack of the platform and collaborated with Growth and Client teams asynchronously across EU and US time zones.
- Received exceedingly positive feedback and recognition from the team. Promoted within 1 year of tenure.
- Went from ramping up on multiple new technologies to being the major contributor to critical Snapchat defense infrastructure and improved service reliability by 20%.
- One manned design and implementation work for a new rule-based security system ingesting LLVM based, multi-platform client attestation written in **C++**, adding fingerprinting support via leveraging **Vulkan and WebGPU** with purpose tailored GLSL Shaders.
- Built new development tools that reduced testing time of new features by 50% via heavy automation.

**Research Assistant** - Politecnico di Milano

2021 - 2022

- Integrated the laboratory's VR equipment with **Unity and Unreal Engine**, created **custom HLSL and GLSL** shaders for AR cases.
- Supervised theses and mentored students on graphics work. Implemented equipment demos for potential stakeholders.

## PROJECTS

**Rendering Engine** - Personal Project

2023-present

- Regularly worked on developing a custom rendering engine.
- Firstly written in **OpenGL**, in the process of migrating to **Vulkan**. Currently working on implementing a modern **mesh shader** based pipeline.

**Lead Programmer and AI Designer on Origin Unknown** - Aerolite Entertainment

2021-2023

- Worked with a distributed team and shipped an **Unreal Engine** based horror game.
- Developed the main enemy AI behaviour as well as different gameplay systems.

## ACADEMICS

**Graduated as M.Sc. Computer Science and Engineering** - Politecnico di Milano

2021

- Master Thesis: Semi automated shader generation via genetic algorithms.
- Developed an algorithm for iterating over HLSL code by leveraging an interactive genetic learning algorithm.

**Master Project - Shadergraph Autogen** - Politecnico di Milano

2020-2021

- Built a unity tool to automate shader generation and visualize them via Unity Shadergraph.
- Wrote different shaders, integrated samples into Unity Shadergraph for visualization and built the UI for user interaction.