

Alyssa Rosenzweig

alyssarosenzweig.ca · alyssa@rosenz.ca · Toronto

SUMMARY

Versatile graphics developer with eight years experience in drivers and compilers. I kickstarted Panfrost, the open Arm GPU effort, leading early development and reverse-engineering. Next I spearheaded open graphics on Apple M1, shipping conformant drivers capable of running AAA games. Then I built Jay, a state-of-the-art shader compiler for Intel GPUs focused on fast compile times. No matter the challenge, I am committed to pushing forward graphics.

EXPERIENCE

Intel

Aug 2025 – Present

Designed a high performance shader compiler for Intel GPUs.

- Designed and developed OpenGL and Vulkan drivers to improve gaming on Linux.
- Researched techniques to build Jay, a state-of-the-art shader compiler.
- Debugged, tested and maintained Intel's open source graphics drivers.
- Analyzed 3D workloads to identify bottlenecks and improve performance.

Valve (independent contractor / self-employed)

May 2023 – Aug 2025

Built system software to improve gaming on Linux.

- Led team of developers building the open graphics stack for Apple hardware.
- Wrote conformant OpenGL 4.6, OpenCL 3.0 and Vulkan 1.4 drivers for the Apple GPU.
- Designed, integrated and tested a NIR-based shader compiler.
- Maintained NIR, the common shader compiler infrastructure within Mesa3D.
- Optimized FEX's dynamic recompilation to ensure smooth gameplay under emulation.
- Contributed to the specifications of graphics standards including Vulkan.

Collabora

Jun 2019 – Apr 2023

Developed open source graphics drivers for Arm Mali GPUs in partnership with Arm.

- Designed and implemented conformant OpenGL ES 3.1 driver.
- Developed shader compilers for Midgard, Bifrost and Valhall architectures.
- Worked with diverse clients requiring open Mali drivers for their products.

EDUCATION

University of Toronto

Sep 2019 – Jun 2023

Honours Bachelor of Science

Toronto, ON

Computer Science major. Mathematics and Religion minors. Graduated with High Distinction.

Lester B. Pearson International Scholar.

PROJECTS

Asahi Linux | Reverse-engineered open graphics drivers for Apple Silicon.

Dec 2021 - Aug 2025

Panfrost | Early open source Mali driver based on grassroots reverse-engineering.

Jul 2017 - May 2019

BOARD MEMBERSHIPS

Asahi Linux

Feb 2025 - Present

X.Org Foundation

Apr 2026 - Present

”

Apr 2022 - Apr 2024

LANGUAGES

English (native). **French**. **Spanish**.