

Emre Cecanpunar

Graphics developer hacking on GPU compilers and drivers

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Open Source Contributions

Mesa

2025 – Present

Independent upstream contributor to Jay

- Drive support for older Intel GPUs in Jay's early development, starting with Gfx12.
- Contribute to Intel's BRW compiler and ANV driver internals.
- Profile compiler and driver internals to identify performance bottlenecks.
- Test changes with Vulkan CTS, Fossilize, targeted reproducers, IR inspection, and sanitizers.
- Participate in upstream design discussions, reviews, and testing.

Linux kernel

2025 – Present

DRM and Platform drivers

- Upstreamed five-patch [hp-wmi](#), series for x86 platform support.
- Investigate Linux DRM/GPU internals.

Apache NuttX

2026

Arm64 SoC bring-up and upstream fixes

- Upstreamed initial RK3588S SoC and Orange Pi 5 Pro support. Project announcement.
- Fixed display and EDID handling issues.

Other upstream work

2026

- Merged a [heap-buffer-overflow fix](#) in NVIDIA egl-wayland2 and merged a [correctness fix](#) in LLVM.

Experience

Embedded Software Engineer Intern, Baykar Technologies

Feb 2025 – Jun 2025

T3 Gemstone platform

- Initiated the Apache NuttX port to the TI AM67A SoC.
- Brought up Cortex-R5F core, including early boot and MPU/cache setup.
- Wrote linker scripts and GPIO/UART drivers; debugged ELF loading through Linux remoteproc.

Avionics Software Developer, Atmaca Rocket Team

Sep 2022 – May 2023

University rocketry team · TÜBİTAK competition

- Developed avionics firmware and parachute-deployment logic using Kalman-filtered sensor estimates.
- The avionics technical report received a full score from TÜBİTAK.

Projects

hpfand

2026

Linux fan-control daemon for HP laptops

- Built Linux fan control for HP laptops using `hp_wmi`, with configurable curves and thermal fail-safes.

Education

B.Sc. Computer Science & Engineering, Akdeniz University

Sep 2022 – Jun 2026