

Senior Software Engineer - GPUs



About Project Crayon

Project Crayon works with studios and publishers all over the world to reinvigorate retro and classic games in new and exciting ways. We innovate history and port it onto next-gen home game consoles. We work with indie and homebrew game developers to help them realize their vision and get it in front of new audiences.

Apply now at careers@projectcrayon.dev

What You will Do

Project Crayon is in need of an experienced Software Engineer Generalist with particular specialization in low-level GPU programming. In this role, you will engage in the reverse-engineering of historical game systems, spanning a variety of arcade machines and home consoles.

Role In Detail

- reverse engineer of classic game engines using state-of-the-art decompilers, disassemblers, and custom-built tools
- Writing platform-optimized GPU shader implementations that solve for complex and unusual requirements
- Leverage extensive knowledge of C++ and cross-platform compilers to ensure seamless compatibility across diverse gaming platforms
- Conduct in-depth profiling and optimization targeting proprietary home game console systems, pushing hardware to its limits
- Implement and optimize shaders tailored to specific target platforms, according to specifications and provided proof-of-concepts

Technical Expertise We're Looking For

- Proven experience with low-level programming, particularly in emulator development or for GPU drivers
- Expertise in optimizing code for multiple platforms, including x86, ARM, and custom console processors
- Familiarity with open-ended GPU texture memory management systems where resource lifetimes are unclear or unknown and overlapping dependencies are common
- Knowledge of historically relevant graphics processing units featured on 32-bit arcade machines and home consoles

Some Nice To Haves

- Any hands-on experience with operating system and firmware design and implementation
- Mobile platform software development (ARM, Android, iOS)
- Contributions to open-source emulator projects
- Familiarity with both Windows and Linux software development

Why Join Project Crayon?

- Work at the cutting edge of game preservation and emulation technology
- Collaborate with a passionate team dedicated to breathing new life into gaming classics
- Opportunity to contribute to the gaming industry's history while shaping its future
- Flexible work environment that values innovation and creative problem-solving

If you're passionate about retro gaming, have a knack for solving complex technical challenges, and want to be at the forefront of game preservation technology, we want to hear from you!

Submit resume and cover letters to:

careers@projectcrayon.dev