Compiler Software Engineers

Looking for a new challenge? LunarG, an independent software consultancy, is looking for talented compiler engineers to help us deliver world-class, 3D-graphics solutions. Our compiler experts create optimizations and enhancements to compiler modules used in GPUs.

You'll be provided with the opportunity to work on an interesting variety of technologies. Our projects range from open source to custom development for a wide variety of clients across the game development, AR/VR, medical, and GPU markets. Many of our projects provide the satisfaction of contributing to and supporting Khronos open standards.

We pay competitively, offer strong bonuses, and foster a supportive and flexible work environment -- making LunarG a great place to work. Our company culture is an environment that encourages teamwork and collaboration. LunarG strives to shed itself of large-company overhead and inefficiencies that don’t provide direct value to our business, clients, and employees. There is transparency from management and employee participation in decision making.

If the following postings spark your interest, please contact Karen Ghavam at jobs@lunarg.com. We look forward to hearing from you!

Compiler Software Engineer Job Description

This position description is for a Compiler Software Engineer. For more experienced candidates, see the additional information about our Senior Compiler Software Engineer job posting later in this document.

Must Education, Skills, and Experience

- **Education**
  - Bachelor or Master degree in Computer Science, Computer Engineering, or a related engineering field

- **Technical Skills**
  - Understanding of compiler intermediate-language representation trade-offs
  - C++
  - Scripting, source code control, and build tools proficiency (e.g. Bash, Python, CMake, Git)
● Experience
  ○ Experience with compilers that includes optimization and compiler front-end methodologies (e.g., LLVM, SPIRV-tools, glslang)
  ○ Experience with various aspects of compiler design including language processing, compiler optimization, code generation, and compiler architecture

Wanted Experience

● Background with industry-standard compiler technologies & frameworks, such as SPIR-V & LLVM.
● Familiarity with shader languages (e.g. SPIR-V, HLSL, MSL, GLSL)
● Familiarity with graphics programming languages & standards, such as OpenGL & Vulkan.
● Familiarity with GPU and CPU architectures
● Development on multiple platforms (Linux, Windows, and macOS)
● Open source development tools and methodologies
● Continuous Integration solutions and methodologies

Salary

● Colorado employees: $91K - $125K and bonus program
● Non-Colorado employees: Competitive compensation and bonus program

Benefits Package

● Flexible schedule
● Paid time off, company holidays
● 401K for US-based employees
● Medical, dental, vision insurance for US-based employees
● Disability insurance for US-based employees
● Life insurance for US-based employees

Senior Compiler Software Engineer Job Description

Must Education, Skills, and Experience

● Education
  ○ Bachelor or Master degree in Computer Science, Computer Engineering, or a related engineering field

● Technical Skills
  ○ Understanding of compiler intermediate-language representation trade-offs
  ○ C++
  ○ Scripting, source code control, and build tools proficiency (e.g. Bash, Python, CMake, Git)
- **Demonstrated Leadership Skills**
  - Ability to manage projects/customer interactions without supervision
  - Ability to identify needs/problems/opportunities to innovate within internal/external environments, set direction, and identify actions that move the team forward.
  - Ability to influence/coach/mentor others

- **Experience**
  - Experience with compilers that includes optimization and compiler front-end methodologies (e.g., LLVM, SPIRV-tools, glslang)
  - Experience with various aspects of compiler design including language processing, compiler optimization, code generation, and compiler architecture
  - Work experience related to graphics shader compiler development
  - Work experience optimizing graphics shader compiler frameworks for the latest GPU technologies

**Wanted Experience**

- Familiarity with graphics programming languages & standards, such as OpenGL & Vulkan.
- Background with industry-standard compiler technologies & frameworks, such as SPIR-V & LLVM.
- Familiarity with shader languages (e.g. SPIR-V, HLSL, MSL, GLSL)
- Familiarity with GPU and CPU architectures
- Development on multiple platforms (Linux, Windows, and macOS)
- Open source development tools and methodologies
- Continuous Integration solutions and methodologies

**Salary**

- Colorado employees: $112K - $180K and bonus program
- Non-Colorado employees: Competitive compensation and bonus program

**Benefits Package**

- Flexible schedule
- Paid time off, company holidays
- 401K for US-based employees
- Medical, dental, vision insurance for US-based employees
- Disability insurance for US-based employees
- Life insurance for US-based employees

If you are interested in joining the talented LunarG team, please contact Karen Ghavam at jobs@lunarg.com. We look forward to hearing from you!