

About Us



Codeplay are internationally recognized experts in advanced optimizing technologies, compilers and programmable graphics. We have been providing acceleration solutions that optimize performance for graphics semiconductor designers and AAA game developers since 1999.

In the semiconductor sector, Codeplay partners with leading chip manufacturers, such as AGEIA, Qualcomm and Movidius, helping them to exploit the full potential of their chipsets and accelerate time-to-market. Our high performance C/C++ compiler technology enables GPU product managers to bring breakthrough new technologies to their graphics processors, significantly reducing development time, costs and risks. Our compiler testing technologies enable the rapid testing of new compilers and languages, such as OpenCL and shader languages. And our expert compiler developers are ready to take on tough optimization and development projects, with years of experience working on graphics processor compilers.

In the games sector, Codeplay's game acceleration technology, Offload™, is being used by leading game developers helping them to obtain the very best performance from their graphics, AI and game code across multiple video game platforms. Codeplay is an official PlayStation®3 Tools & Middleware partner.

Codeplay's consultancy services, optimization technologies and bespoke support enables semiconductor manufacturers and game developers to stay ahead in the continual race in both these competitive sectors, helping our customers set the standard for stunning graphics in visual computing and gaming.

Codeplay, an independent technology company based in Edinburgh, Scotland, has been providing acceleration solutions that optimise performance for AAA game developers and semiconductor manufacturers since 1999.

Vacancies

Compiler Developer

Skills Required

- C++ Programming
- Understanding Of Pointers
- Understanding Memory Types And Performance Issues Of Memory Accesses
- But Mostly An Ability To Learn New Skills

Detailed Information

There is a big move across the technology industry towards GPUs for processing. In games, GPUs are delivering increasingly stunning levels of detail. In smartphones, GPUs are heading rapidly towards games console levels of graphics quality. In High Performance Computing, GPUs are being used to solve scientific problems in medicine, search for energy supplies, and financial analysis.

As GPUs are becoming more powerful, and being adopted more widely, there is a growing requirement to produce tools to enable software developers to make use of this power. Standards are being developed, such as OpenCL, OpenGL, RenderScript, and C++AMP. There are also proprietary solutions developed for specific platforms.

Codeplay is looking for smart developers to join our growing GPU compiler team to work on delivering the next generation of compiler technologies for major GPU companies worldwide. A developer will learn about GPUs, compilation techniques, and how to deliver results in a fast-moving area with a range of innovative technology companies.

For these positions, we look for an ability to pick up new skills, but expect skills in some (not necessarily all) of the following areas:

- C++ programming
- Assembly language programming
- Compiler technologies
- Algorithms
- Graphics engines in video games
- GPGPU (such as OpenCL or CUDA)

We offer a friendly and fun working environment with lots of potential for career development within a growing company.

Location of Position

45 York Place,
Edinburgh,
Midlothian
EH1 3HP

Software Engineer

Skills Required

- Solid Skills In C Programming
- Strong Skills And Interest In Programming (any Programming Language But C++ Would Be A Bonus)
- Efficient Programmer With Understanding Of Program Performance Issues
- Demonstrate Programming Skills Through Larger Software Project(s) (hobby Or Commercial)

- Ability To Quickly Learn New Technology (compilers And GPU Programming)

Detailed Information

Codeplay develop tools and applications for the latest processors appearing in brand-new mobile phones or games consoles. Important for software on these devices is program performance such as fast execution, low memory consumption and, especially on mobile devices, low power consumption. If you are aware of these issues and have done software optimizations before then you might be the right person for us.

This job is an opportunity to work on new tool chains (mainly compilers), but also on demo applications and testing infrastructure. While compiler and tool development is Codeplay's core activity, developing demo applications is equally important to show off the capabilities of our tools, and the web-based testing infrastructure (database, PHP, UI to visualise the test results) is essential to highlight correctness issues and performance bottlenecks. We also do interesting research into new compilation technologies.

We are looking for developers who are keen to work on new technology and like technical challenges, who can work independently (don't worry, you'll be trained on the job) and quickly take on responsibility to lead projects and possibly teams. Your degree results are less important to us. What matters to us is that you can prove that you have created or worked on some interesting software project(s) (hobby or commercial, even websites), that you understand program performance issues, and that you have a good grasp of modern programming languages and concepts.

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Graphics Technology Researcher

Skills Required

- Real-time Graphics Rendering Development
- Ability To Work With Academics On Papers And Presentations

Detailed Information

Codeplay is undertaking a large R&D project with European academics and small companies to investigate future GPU architectures and rendering techniques. This would be a good position for someone who is interested in research in a combined academic/commercial environment. Outputs of the research will be used by Codeplay and the project partners as potential approaches to delivering a next generation of real-time graphics for video games. There will also be papers presented at conferences on the research.

The applicant should have some experience with research in an academic environment or software development in a commercial environment in real-time graphics. The project will include experts in graphics, compilers and GPU architecture, so we hope to create cross-fertilization of ideas and collaborations.

Areas of interest are: ray-tracing, global illumination, and physics-based animation. We are also investigating offload game AI code onto a GPU. In GPU architecture terms, we will be investigating a variety of memory models, as well as producing tools to analyse memory bandwidth usage of GPU software.

Ideally, the applicant would have a relevant PhD, but we would consider research-focused developers with BSc or MSc level degrees in a relevant area.

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