Eric Arnebäck

Software Engineer specialized in Computer Graphics

Location Gothenburg, Sweden

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Technologies

Advanced	Real-time rendering, WebGL, OpenGL, Javascript, C++, Digital Geometry
Proficient	React.js, WebAssembly, Computer Vision, Direct3D, Front-end web development, Unity
Intermediate	Python, Direct3D, Vulkan, Metal
Beginner	Ruby, Ruby on Rails

Employment History

Sep 2016 - Mar 2017 Fraunhofer-Chalmers Centre for Industrial Mathematics, *Gothenburg*
Contracted Student

- Worked as a contracted student a couple of days every week while studying at the university. I explored and implemented approaches to rendering particle simulations with a large number of particles at interactive frame rates. I also explored and implemented procedural generation of meshes, where the meshes are to be used in the visualization of particle simulations.

Main Technologies used: GLSL, OpenGL, C++, RenderDoc

Jun 2017 - Jun 2018 Fraunhofer-Chalmers Centre for Industrial Mathematics, *Gothenburg*
Development Engineer

- Responsible for developing and adding new features to the graphics engine of the software Industrial Path Solutions, a software much used in the automotive industry. I prototyped using Vulkan for rendering CAD data. I prototyped using Screen-Space Reflections for automotive rendering. Implemented a GPU-accelerated Path Tracer using OptiX, and integrated my solution into a simulations software used in the automotive industry.

Main Technologies used: GLSL, OpenGL, C++, Vulkan, RenderDoc,OptiX

Jun 2018 - Jan 2019 Playdead, *Copenhagen*
Graphics Programmer

- Was responsible for developing Rendering Technology for the games that are being developed in the studio

Main Technologies used: Unity, Direct3D, RenderDoc

Feb 2019 - Nov 2021 Standard Cyborg, *Remote*
Software Engineer

- Joined the team to improve the 3D scanning solution that was being developed by the company. Made great and visible improvements on the color quality of the produced scans.
- Using my Computer Vision and Geometry skills, I developed solutions that would automatically fit products such as helmets and glasses to the heads of customers, from our 3D scans.
- Worked on developing cutting-edge, web-browser-based tools, that are used for collecting and storing 2D and 3D data. This data is used for training machine learning models. This involved front-end as well as back-end work.

Main Technologies used: Javascript, Typescript, C++, WebAssembly, WebGL, Ruby, Ruby on Rails. React.js, Metal, Computer Vision

Education

BSc in Information Technology, Chalmers University of Technology
MSc in Computer Science, Chalmers University of Technology