AlexanderLingtorp

software engineer

about

Alexander Frank
Lingtorp

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github/Entalpi

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languages

swedish/english
basic polish
elementary german

interests

scientific computing, GPUs, LaTeX, hiking, game technology, Dungeons & Dragons, computer graphics & visualizations, game development, Rust, C/C++, low-level architecture, Magic: The Gathering, software optimization

education

2020 **Master of Science in Computer Science & Engineering**
Royal Institute of Technology (KTH), Stockholm, Sweden
Civilingenjör Datateknik, specialized in visualizations & scientific computing.

2018 **Exchange semester in Computer Science**
Technische Universität München (TUM), München, Germany

2017 **Bachelor of Science in Computer Science & Engineering**
Royal Institute of Technology (KTH), Stockholm, Sweden

experience

2020 **Systems Programmer** — Avalanche Studios, Stockholm
C++, low-level game engine systems development
Developing and optimising various systems in Avalanche's proprietary in-house game engine Apex.

2018 **GPU Software Engineer** — UX3D, Germany
C++, visualizations, computer graphics
Researched how subsurface scattering can be formulated as a extension to the glTF model format.

2017 **Embedded Software Engineer (internship)** — Megger
C, embedded platforms, visualizations
Investigated potential implementations for various future products.

2015 **Lead iOS Developer** — Greenely
Swift, startup, visualization of energy data

publications

2020 **Real Time Voxel Cone Tracing using Bilateral Filters and 3D Clipmaps**
M.sc Thesis
computer science & graphics, C++, OpenGL
Researched how the illumination method voxel cone tracing could be improved in terms of run time and memory performance.

2017 **Performance comparison of parallel turbulent noise evaluation with different gradient selection methods** — B.sc Thesis
computer science, GPGPU, OpenCL, noise generation
Investigated serial and parallel implementations of the Perlin noise algorithm.