

Curriculum Vitae

Adam Alsegård

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Education

M.Sc. in Computer Science and Engineering, Linköping University 08.2013 – 06.2018

B.Sc. + M.Sc. in the Media Technology programme. I focused on software development, visualizations, computer graphics, ML and image processing.

Academic year abroad, National University of Singapore (NUS) 08.2016 – 05.2017

I spent my 4th academic year in Singapore as an exchange student, studying rendering techniques, AI, UX, CV and parallel algorithms.

Film production, Sundbyberg's Folk High School, Stockholm 08.2012 – 05.2013

Work experience

R&D Software Developer, Framestore, London. 01.2021 – Current

Permanent position in the R&D Virtual Production (real-time) team. We are working on getting photoreal characters to render in real-time in Unreal Engine and to enable using it in VFX productions. Main development is in C++ with some Python scripting.

R&D Software Developer, Double Negative, London 10.2019 – 12.2020

Full time position in the R&D Creature (Fur) team. We were responsible for DNEG's hair system with plugins in Maya, Houdini, Clarisse and Katana. Circumstances had it that I became the main developer after only six months. Among other improvements I developed a new graph UI in Qt & C++ for editing the fur networks to help the transition to a DCC agnostic tool. The main language used was C++, with some Python & Bash scripting.

Software Engineer, Sectra Imaging IT, Linköping. 08.2018 – 10.2019

Full time position in R&D, developing radiology imaging solutions for Sectra's PACS: IDS7. My team was responsible for the rendering of medical images and volumes as well as different kinds of tools and clinical apps that doctors in hospitals around the world could use. We coded mainly in C# (.NET) but used C++ when working with the rendering engine.

Master Thesis Project, Visualization Center C, Norrköping 01.2018 – 06.2018

My master thesis project was to visualize 1,7 billion stars from the second data release of ESA's Gaia mission and incorporate it into the open-source project OpenSpace. In the end I managed to run the full dataset both on desktop PC's and in dome clusters with interactive frame rates. Developed in C++ and OpenGL with some Lua scripting.

Teaching Assistant, Linköping University, Norrköping <i>Lab assistant for 2 different C++ programming courses at LiU. First TND012 for 1st year students and then TNG033 for 2nd year students.</i>	08.2017 – 12.2017
Software Developer, Sectra Imaging IT, Linköping. <i>Summer internship where we further developed a chat feature in IDS7 with C#. Main tasks were to enable chat history, group chats, emoji support, browsing users efficiently and to improve the UI.</i>	06.2017 – 08.2017
Researcher, Spotscale, Linköping <i>Summer internship where we explored machine learning (more specifically DCNNs) and examined if we could apply it on Spotscale's problems. In the end we could successfully classify images into 3 base categories and superpixels within the images into 9 other categories.</i>	06.2016 – 07.2016
Mathematics tutor, Linköping University, Norrköping <i>Mentoring role where I held lessons for 1st year students and tutored them in three different mathematics courses.</i>	09.2014 – 04.2015

Other achievements

Winner of "Technical Excellence" at CAwards 2018, Norrköping <i>I won with the project "AI-maze me" which is a web-based maze solving game where the user can play against an AI that has been trained with Q-learning. Built with WebGL and JavaScript.</i>	05.2018
Winner of "Best UI project" for ETiCCS, Singapore <i>My team won first prize for a React-Redux app we made in an UI dev course at NUS. After the semester me and one more student continued developing the app at the request of ETiCCS. Since Aug 2017 it's being used in a real-life cervical cancer screening project in Ethiopia.</i>	04.2017
Winner of East Sweden Hack 2015, Linköping <i>I was part of the team that won the grand prize "Best Project" (an IoT trip to Berlin) at the 24h hackathon ESH15 with the project Trygga, which was a prototype for a community-based smart panic alarm.</i>	09.2015

Languages

❖ Swedish: Native ❖ English: Professional

Programming skills & tools:

Comfortable with: C++, C#, Qt, WPF, OpenGL, GLSL, Git/Hg/Perforce, Premiere Pro

Worked with to various degrees: Unreal Engine, Unity, Java, Python, Bash, Lua, Web dev (HTML, CSS, JavaScript, React), Parallel programming (TBB, CUDA, MPI, OpenMP, OpenCL, SGCT), AR/VR, Android dev, SQL, Matlab, R, OpenCV