

JOAKIM STÅHLE-NILSSON

Software Engineer

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WHO AM I?

A software engineer with a keen interest in learning new skills, especially in the area of rendering and game related systems. Glad to work in teams and using agile methodologies to create a good product. Always trying to be as prepared as possible, while not afraid to fail and learn from mistakes.



EXPERIENCE

2018 – Now

Lecturer

Blekinge Tekniska Högskola

I am the course responsible, examiner, as well as the main teacher for all of the rendering related courses at the school. In the courses I teach both the Direct 3D 11/12 APIs as well as general rendering techniques and engineering. I am also the course responsible for one of the larger game project courses at the school. Before my focus switched fully to the rendering and games area I was the course responsible, examiner, and main teacher for most of the C++ courses the school gave. Apart from that I have also worked with several different programming related courses, including Python, operating systems, algorithms, and databases. I have handled the creation and correction of assignments and exams, created and held lectures and labs, as well as worked with general course management and development.

2015 – 2018
part time

Teaching Assistant

Blekinge Tekniska Högskola

During my third year at university I applied for and started working as a teaching assistant in mainly the university's C++ courses. This included being a lab assistant, correcting projects, assignments and exams as well as giving simpler lectures.

EDUCATION

2013 – 2018

MSE in Game and Software development

Blekinge Tekniska Högskola

The programme taught software engineering with a focus on real-time systems and 3D graphics. Mainly focusing on C++ the programme gave a good basis for general software development by teaching skills such as object oriented patterns and agile development. The game part of the programme focused on different skills relevant for back-end systems such as asset management, multi-core/multiprocessor programming, and the main focus, 3D rendering using DirectX/OpenGL. The program mixed theory and practice along with projects where teams of students developed game applications together.

LANGUAGES

Swedish - native
English - proficient

HOBBIES

When I am not working on some new programming related project, two different hobbies take up most of my free time, music and Magic the Gathering. I have been playing the saxophone since I was 11 years old and have been playing in a local marching band regularly. I picked up Magic during my years at the university and after joining a local club I started playing it on a higher level, even managing to finish 5th place at GP Copenhagen 2018 with a deck of my own design.

NON PROFIT

My interest in Magic the Gathering and my participation in the club activities lead me to start taking on responsibilities such as helping out with rule questions, arranging and managing tournaments, and even taking on the role as one of the elected leaders of the club with my main responsibility being to overall manage the Magic the Gathering events and activities.

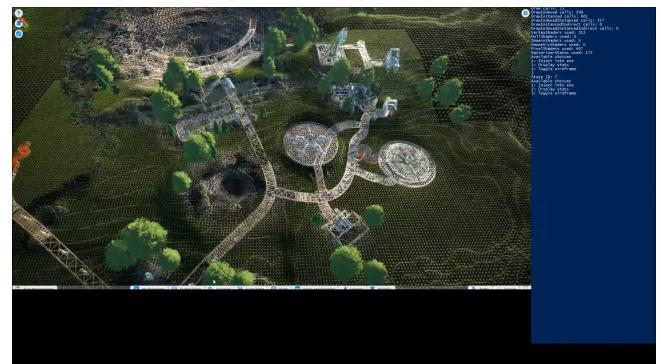
Relevant projects

My current project is a D3D12 framework built using different layers. To try it out I made a small model viewing application using **Assimp** and also added some lighting as well as inline DXR traced shadows. More information can be found on the [github repository](#).



The predecessor to my current D3D12 framework was made in D3D11. As a test project I created a small scene rendered with a deferred physically based shading model, SSAO and FXAA post processing using compute shaders, and tessellation both for smoother surfaces and some displacement mapping.

After a colleague demonstrated their rendering hook application I just had to experiment with it on my own. The result was a small application that could hook some games (including through steam) and manipulate the state a little bit. In the picture you can see it applied on Planet Coaster. The project and links to videos demonstrating the application can be found on the [github repository](#).



During my final year as a student at Blekinge Tekniska Högskola I worked with 11 other students to create a Diablo inspired roguelike game with a scottish theme. I handled several different gameplay aspects such as skill behaviours and also made an external tool with C# to simplify scripting the behaviour.