

## Personal Details

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Nationality	Swedish	Website	<a href="http://www.doeleman.se">http://www.doeleman.se</a>
Languages	English, Swedish, Japanese		

## Skills

- C++, C#, and debugging assembler on x64, x86 and PowerPC.
- PC, PlayStation 4 (Base and Pro), Xbox One (Base, S and X), PlayStation 3, and Xbox 360 game development.
- Rendering and Compute on DirectX 9-12, PlayStation 4, Xbox One, PlayStation 3 and Xbox 360 rendering APIs, and HLSL.
- Parallel programming and low-level SIMD optimisation on x64, x86, PowerPC and SPU.
- Multi-GPU programming for SLI and CrossFire.
- Linear algebra, 3D mathematics, and experience in physically based rendering.
- 3D rendering for several AAA multi-platform racing games, and indie RTS, FPS and third-person games.
- Multi-threaded AAA game engine design and memory management.
- Tools development for AAA games, using .Net, WPF and MVVM.
- Debugging and optimisation with tools like Razor, Pix, GpuView, Nsight, RenderDoc and VTune.
- Software engineering with object and data oriented programming, patterns and UML.
- Strong teamwork and management skills.
- Agile Software Development using Scrum and XP, on long and short term projects.

## Projects

<b>F1 2015-17</b> ( <i>PC, PS4, Xbox One</i> )	Rendering, Systems, Tools
<b>F1 2013-14</b> ( <i>PC, PS3, Xbox 360</i> )	Rendering, Systems
<b>F1 Race Stars</b> ( <i>PC, PS3, Xbox 360</i> )	Rendering, Particle System, Particle Editor
<b>Operation Flashpoint: Red River</b>	Particle Editor
<b>DiRT 3</b>	Particle Editor

## Experience

### Experienced Rendering & Systems Programmer

*Codemasters - F1 Studio, Birmingham — 2012 - Current*

I joined the Codemasters F1 Studio late 2012, and have been a part of the rendering team working on *F1 2013* to *F1 2017*, on both the previous and the latest generation of platforms (PC, PlayStation, and Xbox).

On F1 2015-17, my main focus has been being the main contributor to the UI and video renderers, and also improving the render and game engine systems, in particular synchronisation, memory management and stability. I've also been spending a lot of time in various other areas, like post-processing, lighting, HDR and tools.

On F1 2013-14, my main responsibility was maintaining the renderer, making improvements to e.g. post-processing, shadow rendering and the rear view mirrors. Related to the renderer work, I was also maintaining the weather and track surface systems, which were running on GPU/SPU.

### Rendering & Tools Programmer

*Codemasters - Central Tech, Southam — 2010 - 2012*

When I first joined Codemasters, I worked in the Central Technology and Central Art departments.

In Central Tech, I was a part of the rendering and tech team developing the new in-house engine. My primary responsibility was being the main contributor the particle system, which was a job-based system, running on multiple CPUs/SPUs. It was used in *F1 Race Stars*, and laid the foundation for the particle system used in *F1 2015-17*.

Before I moved to Central Technology, I was working together with the VFX team, working on the particle editor. I rewrote the tool to have a plug-in based architecture enabling it to be used over multiple platforms, multiple games and multiple engines, and also unifying it across 4 of Codemasters studios (Racing, F1, Race Stars and Action). The particle editor was used in the development of *DiRT 3*, *Operation Flashpoint: Red River*, *F1 Race Stars*, *F1 2011-17*, and still being used for new projects.

While I was working on *Operation Flashpoint: Red River*, I also helped the rendering programmers improving the particle system.

### Education

*The Game Assembly, Malmö — 2008 - 2010*

2 years in the game programmer program, focusing on rendering and engine development, with half a year of internship at Codemasters.