



# Filip Karlsson

## Game Programmer

Myresjö, Vetlanda, Sweden

0735706393 · [holger.karlsson.98@gmail.com](mailto:holger.karlsson.98@gmail.com)

↪ [LinkedIn](#), [Portfolio](#),  
[GitHub](#)

### Skills

GitHub

Unity

Godot

C#

C++

Lua

HLSL

DirectX 11

Agile and Scrum

Game Development

Artificial Intelligence

Machine Learning

### Languages

Swedish

English

## Profile

Driven and passionate game programmer graduate with experience using C++ and DirectX 11. Committed to gain experience and new connections. If a problem arises I cannot leave it until it is solved. Worked on two games projects with 5-10 people in school where the team and independent work were both important and fun.

## Education

### Bachelor of Computer Science, Game Programming, Blekinge Institute of Technology, Karlskrona

August 2017 — 2021

#### Bachelor's Thesis in Computer Science 2020

I and one other student made a thesis about machine learning using ML-Agents in Unity. The title is "*Comparison of Two Different Methods of Generating Physics-Based Character Animation using Reinforcement Learning*" and can be found on Diva. We compared generating animation with motion imitation and one without.

#### Large Game Development Project with Agile Methods 2019-2020

A big game project I and 10 others worked on during my studies at BTH for 6 months, called Oil Spillage. The game engine was made with DirectX and Bullet Physics. Some work I did was a particle system mainly on the GPU using compute shaders, shadow mapping, a simple mission system and, the UI for the missions. Repository: <https://github.com/Xemrion/StortSpelProjektGrupp2>

#### Small Game Project for Game Programming 2019

My first team game project spanning 3 months with 5 other students. Our task was to create a game with the graphics API DirectX without any prebuilt engine. We created a fighting game called Woodland Beatdown where you play as an animal and fight each other up to 4 players locally. I worked on the engine and created shadows using shadow mapping, glow, deferred rendering with volume lights. Repository: <https://github.com/xfac11/LitetSpel>

#### Technique program, Information and media technique, Njudungsgymnasiet, Vetlanda

August 2014 — June 2017

# Employment History

## **Personal Assistant, FMF Assistans, Ekenässjön**

July 2020 — Present

I work part-time at FMF as a Personal Assistant to one individual. I help the individual with cooking food, cleaning, hygiene, and other important tasks that they can't handle on their own. At my individual's home, the environment is changed to their needs so they feel the most comfortable in their own home. Documenting is also part of the job to make it easier for new assistants and keeping everyone up to date.

## **Summer Job, Plannja Steinwalls, Landsbro**

July 2015 — August 2019

This was my first summer job and before I was 18 I mostly sat in a room shining advertising sheet metal. Although simple it was a good first experience job. When I turned 18 I was placed in the producing area and worked at different machines. Bending diverse sheet metal in different machines and also packing components for clients.

# Courses

**Large Game Development Project with Agile Methods, Blekinge Institute of Technology**

**Small Game Project for Game Programming, Blekinge Institute of Technology**

**3D Programming, Blekinge Institute of Technology**

**Initial Programming in C++, Blekinge Institute of Technology**

**Object-oriented Programming, Blekinge Institute of Technology**

**Algorithms and Data Structures, Blekinge Institute of Technology**

**Game Artificial Intelligence**

**Usability and Interaction Design**

**Scripting and Other Languages**

**Basics in Game Development**

**Applied Real-time Physics**

**Bachelor's Thesis in Computer Science**

**Linear Algebra**

**Software Design**

**Performance Optimization**

**Computer Networking for Game Development**

**Research Methodology in Game and Software Engineering**

**Research Orientation in Game and Software Engineering**

**Operating Systems**

**Discrete Mathematics for Software Technology**