



Martijn Hagnaars

C++ Game Engine Programmer

martijnhagnaars.com · [GitHub](https://github.com) · [Itch.io](https://itch.io)

[LinkedIn](https://www.linkedin.com/in/martijnhagnaars) · martijnhagnaars@outlook.com

📍 Brabant, The Netherlands

About

I'm a **C++ programmer**, with a primary focus on **game engine development**.

I enjoy solving problems and learning about new concepts. I aim to write well-structured code that is robust, clean and reusable.

I've worked effectively in several teams, occasionally assuming lead roles to ensure good communication. I also work effectively on my own, as I've worked on many personal projects.

Skills

C++	3 years
OpenGL	2 years
Unreal Engine	4 years
GitHub	2 years
Perforce	3 years
Scrum	2 years

Languages

Dutch	Native proficiency
English	Fluent

Work Experience

On the Bubble

Sep 2023 - July 2024

Student Project, Custom Engine

Lead engine programmer

Windows (Steam), PS5

Team size: 13

A **custom game engine** with the goal of creating a monkey-ball-inspired game for **Windows and PS5**, using **raytracing**, **custom physics** and a **custom level editor**.

My contributions include **implementing the game objects** (foundation for all objects in a level), **level systems** (used for loading, unloading and switching levels), **custom serialization and deserialization** and **file IO for both platforms**.

LAGGED

Sep 2023 - Present

Custom Engine

Personal project

Windows (GitHub)

Team size: 1

LAGGED (which stands for Learning About Graphics and Game Engine Development) is a **personal project where I work on creating a general-use engine**.

This project contains an **ECS using EnTT**, editor tools like an entity editor, which uses **EnTT's Meta reflection system**, **terrain generation** using Perlin noise and **graphics using OpenGL**.

Ruckus and Rascal

March 2023 - June 2023

Student Project, Unreal 5.1

Lead developer and AI programmer

Windows (Itch.io)

Team size: 11

A chaotic couch co-op game where you play as 2 raccoons, with the goal of taking out the head chef of the Deviant's diner.

My contributions include **creating tools for customizing AI behaviors** for the enemies and developing **gameplay prototypes**. I also took on the role of **lead programmer**, contributing to Scrum processes and ensuring alignment and task clarity among all programmers.

Education

Breda University of Applied Sciences

Sep 2021 - Jun 2025

Creative Media and Game Development

At the Breda University of Applied Sciences, I'm studying the Programming discipline, which is part of the Creative Media and Game Technologies programme.

Here, I am mostly focusing on Engine development. I am currently working on a large group project where me and eleven other programmers are creating an ambitious game engine which will be used for creating a currently unannounced game.