



Olli Kettunen

Curriculum Vitae

Education

2007–2014 **Master of Science (Media Technology)**, *Aalto University School of Science And Technology, Otaniemi, Espoo, Major: Media Technology, Minor: Personal (Mathematics and Physics).*

Attended in the Special Module of Game Design and Production. The module involved courses of game design, analysis and a larger game project. In the project we implemented a platformer called Phorm.

2004–2007 **Matriculation Examination**, *Olari High School of Mathematics and Natural Sciences, Espoo.*

75 courses of which 43 mathematics and natural sciences.

Masters Thesis

Title *Design And Implementation Of A 3D Rendering Engine For A Video Game Production Pipeline*

Supervisors Professor Perttu Hamalainen

Description This thesis compared different game engines with certain criteria such as modularity, iteration speed, API usability etc. Ultimately describes implementation of some 3D features to a game engine Asema which is authored by Kuuasema Oy.

Experience

Vocational

December, 2024– June, 2025 **Graphics Engine Developer**, BASEMARK OY, Helsinki.

I investigated a cutting-edge highend graphics engine and developed features on a demanding special project with C++. The project was related to Vulkan graphics API and GPU accelerated raytracing.

April, 2022– December, 2024 **Senior Graphics Programmer**, RELEX SOLUTIONS OY, Helsinki.

My responsibility was to implement with TypeScript visual features to RELEX's own 3D renderer product which utilized Three.js renderer. Role involved backend programming in C# to a microservice system as well.

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- September, 2020– **Game Programmer**, FROZENBYTE OY, Helsinki.
 September, 2021– My duty was to implement gameplay features with C++ to a triple A 3D game called Starbase. Features included Animation, UI, Gameplay logic and somewhat Graphics.
- March, 2018– **Game Programmer**, QUICKSAVE INTERACTIVE LTD., Helsinki.
 February, 2020– I programmed chat-based instant games on chat platforms, including Facebook Messenger. I utilized Quicksave's technology, which is a TypeScript and HTML5 based UI system with an editor. I programmed also Quicksave's new website with the system. Moreover, I prototyped a cool game that Quicksave wishes to release in the future. All games and applications are serverless applications. During my time in Quicksave I practised programming a 3D rendering engine with WebGL2 and integrated it with Quicksave's own system.
- June, 2017– **Graphics Programmer Trainee**, BUGBEAR ENTERTAINMENT LTD., Helsinki.
 January, 2018– I programmed computer graphics features with C++ to Bugbear's own game engine, such as normal map compression, physically based rendering and motion blur.
- March, 2017– **Game Programmer**, RIVERGAMES OY, Helsinki.
 June, 2017– I developed a commercial F2P game called Wheelie Racing using Unity and C#. Moreover, I integrated some services to the game, including Flurry Analytics, Unity In-App Purchases, Apple Game Center leaderboards, Google Play leaderboards, Appsflyer app tracking and advertisements using Fyber.
- June, 2013– **Master's Thesis Worker**, KUUASEMA OY, Helsinki.
 December, 2013– I updated Kuuasema's own game engine using Java. Updates included 3D graphics, such as 3D model loading, scene graph manipulation and skeletal animation.

Other experience

- November 25-27, 2016 **Hackathon Junction 2016 Game Jam.**
 We had a five member crew working on a prison escape game called Escape. The game was implemented with Unity3D.

Computer skills

Programming

- excellent: C++, C
- very good: OpenGL/GLSL, C#, TypeScript, JavaScript
- good: DirectX 12 Ultimate/HLSL, WebGL/WebGL2, Vulkan, LUA, Node.js/Express, JAVA
- basics: HTML5, PHP, MySQL

- Applications Visual Studio, Visual Studio Code, SVN, Git, 3D Studio Max, Blender, Eclipse
 Engines Unreal Engine 5, Unity3D, PIXI.js, Three.js, some in-house engines
 Platform Windows, OS X, Unix/Linux

Languages

- Finnish **Native**
 English **Very Good**
 Swedish **Good**
 German **Adequate**

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Interests

- real-time computer graphics and game programming
- floorball
- computer and console games
- football and futsal

Portfolio

- <https://ollikettunen.fi/>
- <https://github.com/Hyperkettu>

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