

SKILLS

Languages	C++, C#, Java, CMake, Matlab, ReactJS, Python	Frameworks	STL, .NET, ImGui, QT, Boost, OpenGL, JavaFX	Automation	CMake, Premake
Engines	Unreal Engine 4, Unity 3D, CryEngine V, AGS	IDEs	Visual Studio, VSCode, Rider, IntelliJ, PyCharm	Version	Git, Perforce
Programs	Krita, Audacity, Inkscape Vegas, Kdenlive, Office	3D Tools	Blender, Substance, ZBrush	Testing	GoogleTest, NUnit, Mocha

EXPERIENCE

Student Research Assistant

Aalto University School of Science

14/10/2019 - 31/05/2021

Espoo, Finland

<https://www.aalto.fi/en>

- Published a paper on CHI-Play as the first author during the 1st year of my Master's degree: 3PP-R: Enabling Natural Movement in 3rd Person Virtual Reality.
- Research on procedural content generation and 3D animation programming in games.
- Developing novel solutions to existing problems in virtual reality environment regarding player locomotion and orientation.

[See Publication](#)

Freelance Game Programmer

Various

2015-2021

<https://www.inanevin.com/gameprojects>

Along with many personal projects I have worked on, I have also been working as a freelance game developer / software engineer during my Bachelor's and Master's. I have worked on numerous PC, mobile and virtual reality games, including simulation projects and serious games.

LuxTurrim5G - **[Aalto University, Nokia, 2021]**

Stelo VR - **[Aalto University, FRAGE, 2020]**

Egitlence, Pingu - **[FYK, 2019]**

Balleap, Sticky Dude - **[Lugcap, 2018]**

Vokabel Rally - **[Das Akademie, 2016]**

Tools Developer

Unity Asset Store

2018-Present

<https://www.inanevin.com/assets>

I have been developing and publishing various tools in Unity Asset Store including first-person systems, ballistics physics, camera systems and shaders. I still provide support and updates for my packages and develop new ones as side projects.

PROJECT HIGHLIGHTS

[See my complete portfolio on my website.](#)

Lina Engine

A light-weight, ECS based 3D game engine made with C++ from scratch.

2018-Present

<https://www.inanevin.com/gameprojects/linaengine>

Lina Engine is my Bachelor's dissertation project, an open-sourced modern 3D game engine focused on being a modular & light-weight engine, aimed at solving variety of problems within the architectures of contemporary game engines. I have designed it's architecture and developed a proof of concept during my thesis. Later on I continued to work on Lina Engine as a side project.

- Developed using C++ and GLSL from scratch, CMake and Travis CI for building and testing automation, ImGui for custom editors.
- Resource & asset management pipelines, importers, multi-threading & task management, job & event system.
- Platform, file & time utilities, 3D math library, Easy Profiler integration, bitset free entity-component-system integration.
- Physics world engine based on Bullet Physics, GLFW based input wrapper for keyboard, mouse, joystick & xbox controllers.
- PBR Rendering pipeline with OpenGL backend, metallic & specular workflows, point, directional & spot lights.
- Real-time shadow mapping & baked directional shadows, HDRI, cubemap, IBL, reflectance & irradiance with probes.

Unforeseen

2014-2016

<https://inanevin.com/gameprojects/unforeseen>

First-person sci-fi, thriller and adventure game with an intense backstory.

Unforeseen is a first-person adventure game that is heavily based on a sci-fi story, full body first-person-view animations and polished voice acting, it is made by a team of 3 within 2 years. I was the sole programmer and we wanted to create an adventure game which is something more than 'a camera flying in nicely rendered places'.

- I was responsible for designing & implementing player systems, gameplay mechanics, audio/UI/VFX systems, animation & 3D integrations along with lighting and cinematics.
- First time experience on such a huge project, made me acquire many skills regarding to finalizing, polishing and maintaining a product.
- Heavily focused on first-person player systems and third-person cinematics. Developed tools for smooth gameplay and cinematics transitions.
- Wwise integration, responsive and event-based audio system for players and AIs.
- Heavily made use of test-driven-development for platform utilities, state machines and player systems.

EDUCATION



Master of Science

Game Design and Production, 2019-2021

Honours, GPA: 4.66 / 5.0

Aalto University, Finland

Dissertation

A gameplay framework & toolset currently anonymised due to on-going conference submission.



Exchange Studies

Computer Science, 2018/2

University of Vaasa, Finland



Bachelor of Science

Software Engineering, 2014-2019

High Honours, GPA: 3.8 / 4.0

Izmir University of Economics, Turkey

Dissertation

Lina Engine, a light-weight Entity-Component-System based open-source 3D game engine. Architecture design and proof of concept implementation, along with a Software Design Document (SDD).

AWARDS & PUBLICATIONS



CHI PLAY 2020

Publication as the First Author, CHI Play 2020

[3PP-R: Enabling Natural Movement in 3rd Person Virtual Reality](#)



Game Design Concept Funding By AVEK, Kopioisto

[Think Backwards GDD](#)



Amongst the top 50 students all around the world
in Unity Student Contest for GDC All Access Pass, 2018



1st Place Award in GBYF (Young Minds New Ideas)

Bachelor's Thesis Exhibition

[Lina Engine](#)

- Global Game Jam 2016 Ege 3rd Place Award: [Aln](#)
- DOGED, TNet Build-Up 2015 1st Place Award: [Ivan](#)
- Global Game Jam 2015 Ege 2nd Place Award: [Bak Napalim](#)
- DOGED, TNet Build-Up 2014 2nd Place Award: [Phase Magician](#)
- Global Game Jam 2014 Ege 1st Place Award: [Psychic Baby](#)