



ARNE OLEMANS

Engine Developer

EXPERIENCE

KnipTang-Engine

A C++ custom game engine.

Solo Project

Used Tech

- C++
- Github
- SDL
- GLM
- XInput
- SDL_Mixer
- ImGui
- SteamWorks
- Visual Studio

Used Patterns

- Component system
- Observer
- Double buffer
- Event Queue
- Command
- Pimpl
- Service locator
- State
- Dirty Flag

Features

- Self made collision system.
- Multi-Threaded sound system.
- VSYNC controlled game loop.
- Multiple active scenes.
- Painless scene management.
- RAI memory management.
- Keyboard and Xbox controller support.
- Multiple players input system.

Genetic algorithm for Flappy Bird

Neural network play Flappy Bird perfectly with a genetic algorithm.

Solo Project

Used Tech

- C#
- Unity
- GitHub
- Visual Studio

The Neural Network

- 2 Input layers. The length of x & y between the bird and the incoming pipe.
- 6 Hidden layers. Manipulates values for each bird unique weight.
- 1 Output layer. The action of each bird after calculation.

Features

- Average of four generations before desired result.
- Using fittest parent birds to conceive next generations.
- Crossover & mutation.

Form Frenzy

A team project. Co-Op indie party game.

Group Project

Used Tech

- C#
- Unity
- Perforce
- Visual Studio

My Responsibilities

- Programmer.
- Game designer.
- Communication and Implementation between artists and programmers.
- Game trailer actor.

Features

- Hole in the wall inspired.
- Rigged based character
- Ragdoll physics.
- Controller support.
- Algorithmic basic difficulty scaling.

PROFILE

Profession

Engine Developer

Passionate About

Rendering programming

Date of birth

09 May 2004

E-mail

arne.olemans@outlook.com

Website

www.ArneOlemans.com

SOCIAL MEDIA

LinkedIn

<https://www.linkedin.com/in/arne-olemans-5b0a03253/>

GitHub

<https://github.com/KnipTang>

EDUCATION

2022 - 2025

Bachelor - Game Development

Digital Arts and Entertainment

2024 - current

Bachelor - Game Development (Erasmus)

Abertay University

2020 - 2022

Informatics - Highschool Alumnus

KsDiest

STUDENT JOBS

2023

Unwrap volunteer / Game Jam participant

Game industry networking event.

GameJam game: Ride of Giri

2022

Cegeka

ICT - Highschool internship

WORKING ON

current

ReVengin

FPS focussed DirectX11 custom C++ game-engine

SKILLS

Main Languages

- C++
- C#
- HLSL

Second Languages

- HTML 5/CSS 3
- JavaScript

Human Languages

- English
- Dutch

Game Engines

- Unity 5
- Unreal 5

Source Control

- Perforce
- Git
- GitHub

Graphics Debuggers

- RenderDoc
- NVIDIA Nsight graphics

Frameworks/Libraries

- DirectX11
- Vulkan
- SDL
- Dear ImGui
- XInput
- SDL_Mixer
- SoLoud
- GLM
- SteamWorks
- OpenCV