



ARNE OLEMANS

Engine Developer

PROFILE

Name

Arne Olemans

Date of birth

09 May 2004

E-mail

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Website

www.ArneOlemans.com

SOCIAL MEDIA

LinkedIn

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

GitHub

<https://github.com/KnipTang>

STUDENT JOBS

2023	Unwrap volunteer / Game Jam participant Game industry networking event - GameJam game: Ride of Giri
2022	Cegeka ICT - Internship
2021	Gardener At city Diest
2020	Blankedale Factory worker

EXPERIENCE

KnipTang-Engine

A C++ custom game engine.

2024

Skills

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

Patrons

- 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.

2024

Neural Network

- 2 Input layers, for the length of x and y between the bird and the middle of the incoming pipe.
- 6 Hidden layers, to manipulate the values with each bird unique weight values.
- 1 Output layer, to determine action of bird after calculations.

Genetic algorithm for Flappy Bird

Neural network that play Flappy Bird perfectly using a genetic algorithm.

Features

- Average of 4 generations before desired result.
- Using fittest parents birds DNA to conceive next generations using crossover and mutation.

Skills

- C#
- Unity
- GitHub
- Visual Studio

Form Frenzy

a team project,
Co-Op indie party game.

2024

Skills

- C#
- Unity
- Perforce
- Visual Studio

Responsibilities

- Lead programmer.
- Game designer.
- Communication between artists and programmers
- Implementation from art. to game engine
- Game trailer actor.

Features

- Tv-series, Hole in the wall inspired co-op party game.
- Rigged based character
- Ragdoll physics.
- Controller support.
- Algorithmic basic difficulty scaling.

EDUCATION

2022-2025

Bachelor - Game Development

Digital Arts and Entertainment

2024-2024

Bachelor - Game Development(Erasmus)

Abertay University

2020-2022

Informatics

KsDiest

SKILLS

Main Languages

- C++
- C#
- HLSL

Second Languages

- Html/CSS/Flexbox
- JavaScript

Human Languages

- English
- Dutch

Game Engines

- Unity 5
- Unreal 5

Source Control

- Git
- GitHub
- Perforce

Graphics Debuggers

- RenderDoc
- NVIDIA NSync graphics

Frameworks/Libraries

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