

Personal Projects

Development of a rust profiler

2023 - Present

PERSONNAL UTC PROJECT

- Develeppoment in rust, of a **multi-architecture, multi-platform** application
- Originated from the need for an open-source rust profiler, since most profilers target linux, with the perf library
- Implementation of **conditionnal builds**
- Reverse engineering of **MacOS PrivateFramework** kperf

Implementation of Delaunay triangulation in $O(n \log(n))$ complexity

2022

PERSONNAL PROJECT

- Read Leonidas Guibas and Jorge Stolfi's 1985 paper
- Implemented proposed method in **Rust**, with **nannou library** for rendering

Coded an assembly SIMD image filter

Autumn 2021

SCHOOL PROJECT

- **SIMD** program was 4 times faster than **03 C** program
- Edge detection filter with the Kovalevsky method

Coded a 3D rendering engine in vulkan

Summer 2020

PERSONNAL PROJECT

- Learned how to use the **Vulkan API** and **OpenGL** in **C++** code
- Learned pipeline systems for 3D rendering
- **Toolchain** setup with premake **build tool** after using CMake

Coded a Huffman compression algorithm in C

2018

PERSONNAL PROJECT

- To learn about **pointers**, and **data structures**
- Learned how to properly use **Git** with this project