# **Brice** Peres

## Computer science student

## **EXPERIENCE**

**CORYS** | ENGINEERING ASSISTANT

May. 2023 - Sept. 2023 | Grenoble, France

→ Implemented optimised windscreen effects for a runtime train simulator including rain, snow, dirtiness and cleaning on Unreal Engine 5 in Alain Kocelniack R&D team

#### GRENOBLE COMPUTER SCIENCE LABORATORY | ENGINEERING ASSISTANT

Sept. 2022 - Dec. 2022 | Grenoble, France

→ Establishing a state of the art of nudges and behaviour change research related to numeric consumption in households in order to assist Yann Laurillau in his work.

#### FRENCH INSTITUTE FOR RESEARCH IN COMPUTER SCIENCE AND AUTOMATION

INTERN

(June 2021 - July. 2021) | Grenoble, France

→ Generalization of terrain using GPU filtering under the supervision of Joëlle Thollot and Romain Vergne.

## PERSONAL PROJECTS

#### BLACK SEAS VIDEO GAME | RUST, OPENGL

Feb. 2023 - Apr. 2023

→ Made a multiplayer game called Black Seas with 4 friends on a game engine we wrote from scratch. Player can control a boat on an infinite ocean an travel between proceduraly generated islands. I mainly worked on rendering, terrain generation and the game engine architecture.

## RAYTRACER | RUST

Aug. 2022 | two weeks

→ Basic raytracer implementation (running on CPU) with a window showing the image being rendered.

#### AI CHALLENGE | PYTHON

Feb. 2022

Participation to a contest organised by Neovision  $|4^{th}|$  place

→ Classification of images among 17 types of wastes with a tiny dataset.

#### RAYMARCHING | GLSL

2018 - 2020 | a few weeks

- → Discovery of 3D programming. Rendering of a few scenes with materials, lights and reflections on Shadertoy.
- → Simulation of an atmosphere inspired by the Rayleigh phenomenon.

#### VISUALIZATION OF PHYSICAL PHENOMENA | PYTHON

Nov 2021

SET OF PROGRAMS MADE DURING THE PREPARATORY CLASSES TO VISUALIZE CERTAIN PHYSICAL PHENOMENA INPIRED BY THE COURSES

- → Electrostatic field of charged particles
- → 2D model of a tsunami
- → Calculation of the movement of a particle in a tokamak with poloidal correction

## **ACADEMIC PROJECTS**

## **GRAPHICAL USER INTERFACE** | C

May. 2022 | three persons team

IMPLEMENTATION OF A GRAPHICAL INTERFACE IN C, USING UNDERLYING PRINCIPLES OF OBJECT PROGRAMMING

- → Event management, callbacks
- → Widget display : Top-level, frame, buttons
- → Construction and generic handler for geometry managers



## **WEBSITE**



BricePrs.Github.io

## CONTACT



BricePrs



Brice Peres



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## SKILLS

#### **PROGRAMMING**

Proficient:

Rust • C++ • C • Python GLSL • OpenGL

Java • Shell • Assembly latex

## **LANGUAGES**

French | Mothertongue English | C1, TOEFL 100PTS Japanese | A1

### **EDUCATION**

#### **ENSIMAG**

Sept. 2021 - Present | Grenoble, France École nationale supérieure d'informatique et de mathématiques appliquées

## HIGHER SCHOOL PREPARA-**TORY CLASSES**

LYCÉE NOTRE DAME DE SION Sept. 2018 - July 2021 | Marseille, France

#### INTERESTS

## **CLIMBING**

BOULDERING | ROCK CLIMBING Sept. 2011 - Present Participated in a few competitions.

#### **GAMEJAMS**

2018 - Present