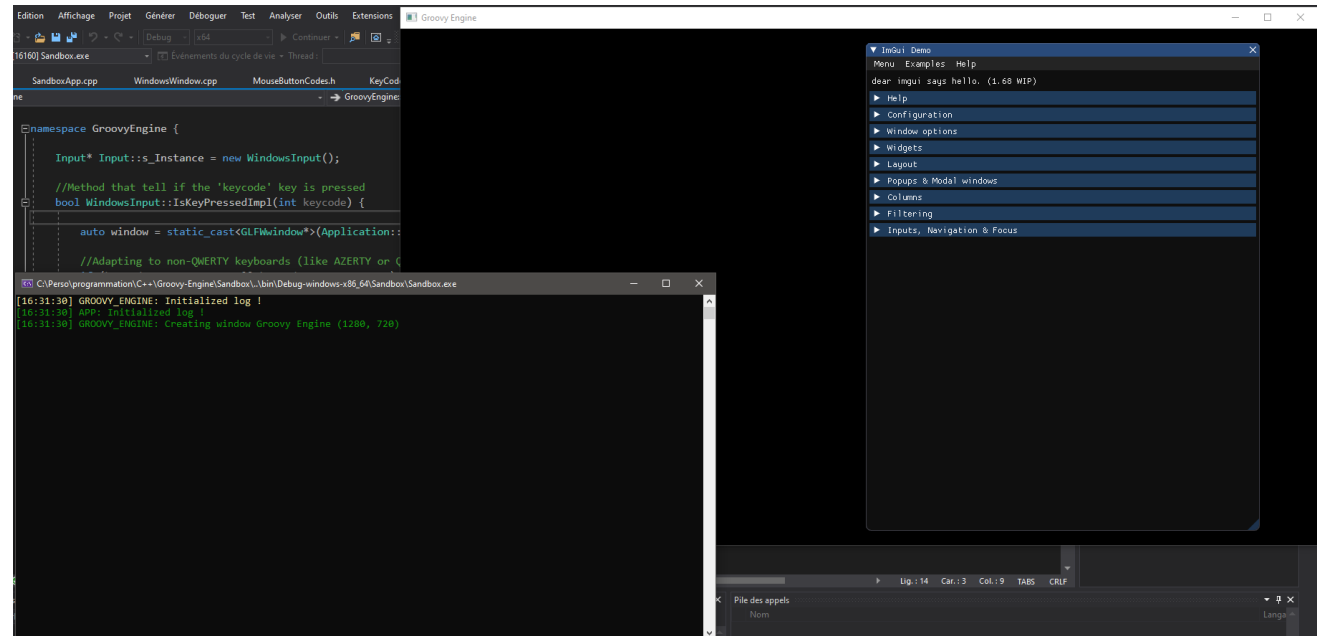


Thomas von Ascheberg's Portfolio

Main projects

Groovy Engine

Jun. 2020 – today

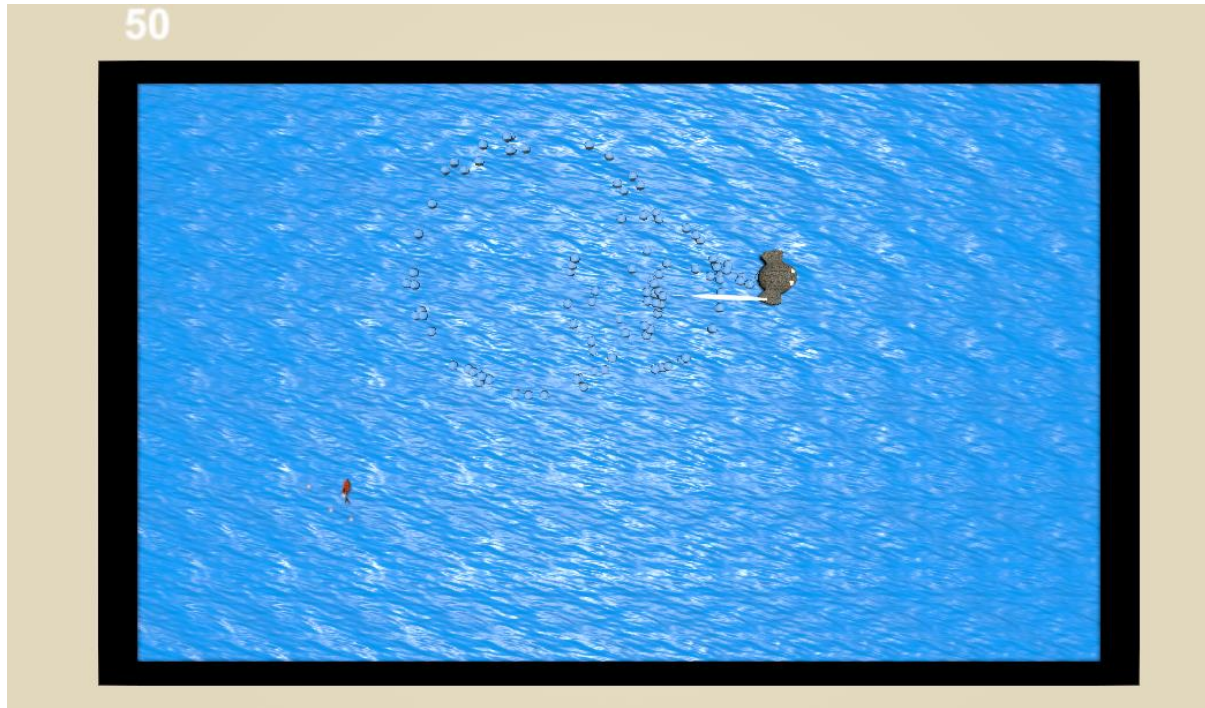


Description :

Game engine based on the “[Game Engine Series](#)” of the YouTuber “theCherno”. It is a personal challenge as I want to build a game engine at a professional level (quality-wise). My main objective is to **learn a lot** more on game engines and games. It is **the first step** in the long-term objective that I have about **creating my own games**.

Sneaky Whale

Oct. 2020

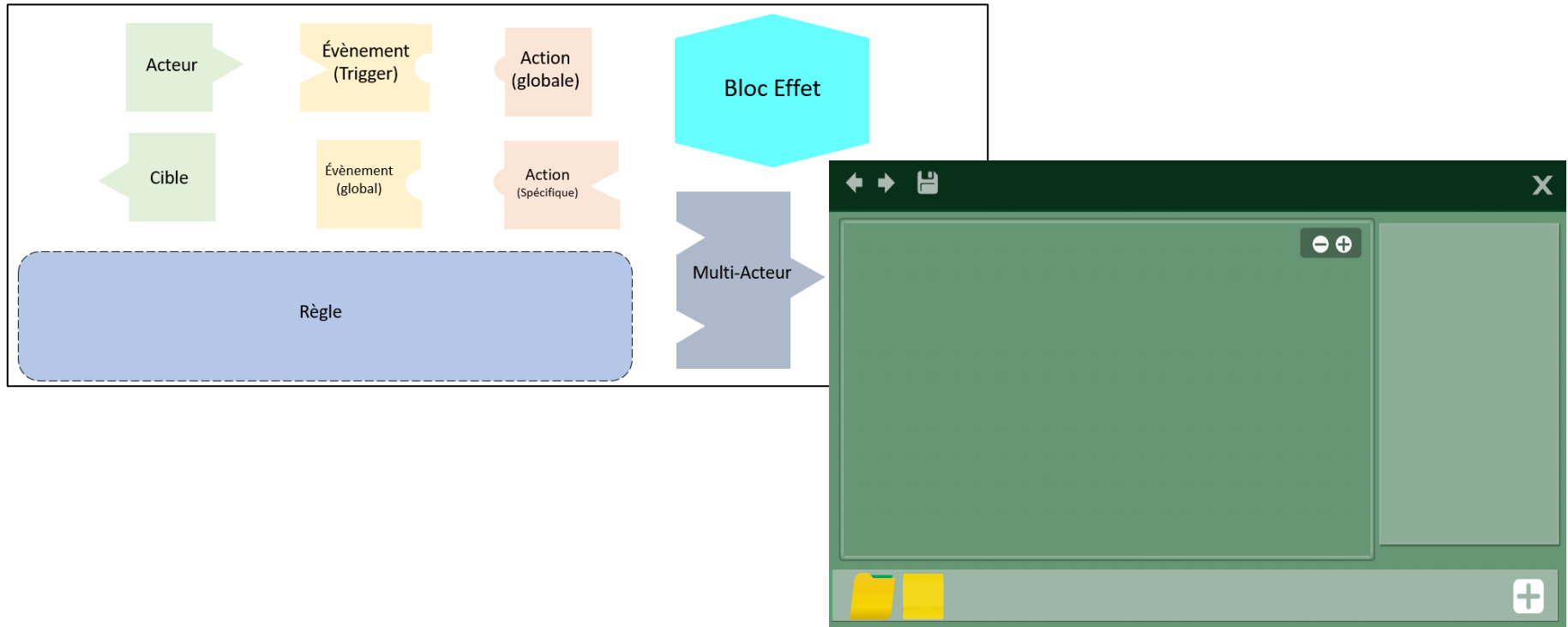


Description :

Small **game developed alone** in a **Game Jam spirit**. I gave myself one week to answer an online challenge stating : *"Can you make this button fun to press?"*. The aim of this project was to **discover and test what creates "fun" in the gameplay a videogame**.

Nadeo Rule Designer

Mar. 2020 – Sep. 2020



Description :

Conception & prototyping a visual modding system for TrackMania (done during my internship at Nadeo). The system is based around the principle of designing “rules” for the game (principle which could be compared to a grammar for a compiler). The prototype was built in ManiaScript and ManiaLink, two technologies created by Nadeo.

Paris-Saclay's Ultimate Championship *Sep. 2019 – Mar. 2020*

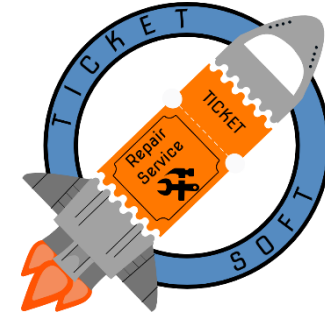


Description :

Paris-Saclay's Ultimate Championship was a video game competition organized on the videogame Super Smash Bros. Ultimate. It was a championship between **8 major universities in France** with a big final tournament on the "Plateau de Saclay". I was **managing a team of 25 organizers** to make this event happen !

TicketSoft

Sep. 2019 – Mar. 2020



Créer un Ticket

Van Tickets

Van Carte

Michel Scala

(Opérateur)

Déconnexion

Filtrer les tickets compris entre les dates :

Début

Fin

jj/mm/aaaa

jj/mm/aaaa

Détails et Modification du ticket		Filtrer un état	Rechercher un ID	Date	Catégorie de la demande	Type du Ticket	Entreprise Client	Taux d'avancement
Modifier	En Cours		19970322	2019-09-02	Etude	Demande	Boucherie ALAINE	50%
Poids du sous-ticket								
	Etat du Ticket	ID Ticket	Date	Catégorie de la demande	Type du Ticket	Entreprise Client	Taux d'avancement	
1	Fermé	19970321	2019-09-01	Matériel	Demande	Boucherie ALAINE	100%	
1	Fermé	19970320	2019-08-29	Etude	Demande	Boucherie ALAINE	100%	
2	En Cours	19970319	2019-08-29	Etude	Demande	Boucherie ALAINE	50%	
Modifier	Fermé	11092019	2019-09-11	Matériel	Incident	Boucherie SANZO	100%	
Modifier	En Attente	12340025	2019-09-02	Température	Incident	Fauchon	0%	

Création/Modification du ticket

Informations sur le ticket

Statut: Type de ticket: Catégorie:

Client: Client Prioritaire?:

Demandeur:

Objet:

Description de la demande:

Date:

Informations sur l'intervention

Compétences requises:

Lieu de l'intervention:

Date de l'intervention: Heure de l'intervention:

Technicien:

Durée Prévisible de l'intervention:

Durée Effective de l'intervention:

Gestion des sous-tickets

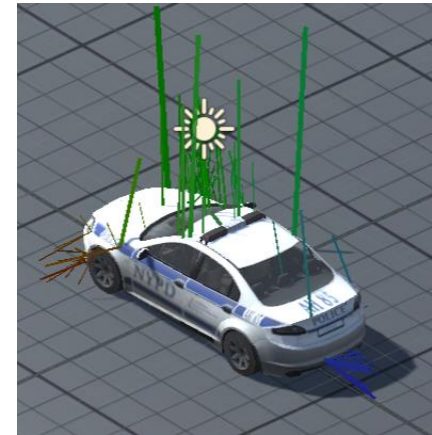
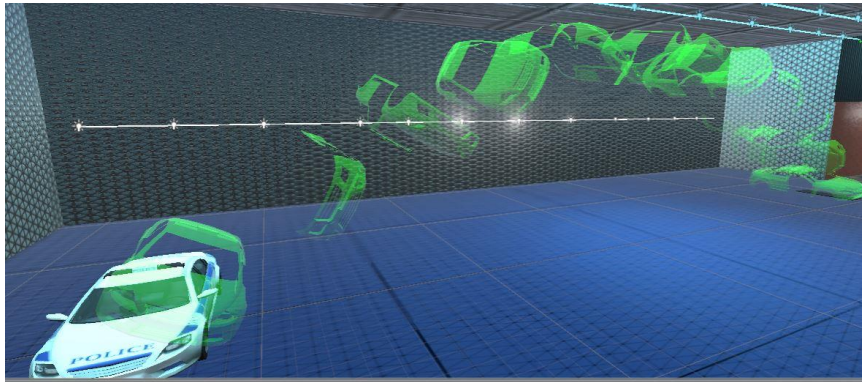
Annuler Valider

Description :

Leading a software engineering team of 6 people for the end of cursus project at Polytech Paris-Saclay. The software was a website dedicated to ticketing issues. It was **a great full-stack development experience** where we used agile methods to manage the project !

CrashTestVR

Jan. 2020 – Mar. 2020

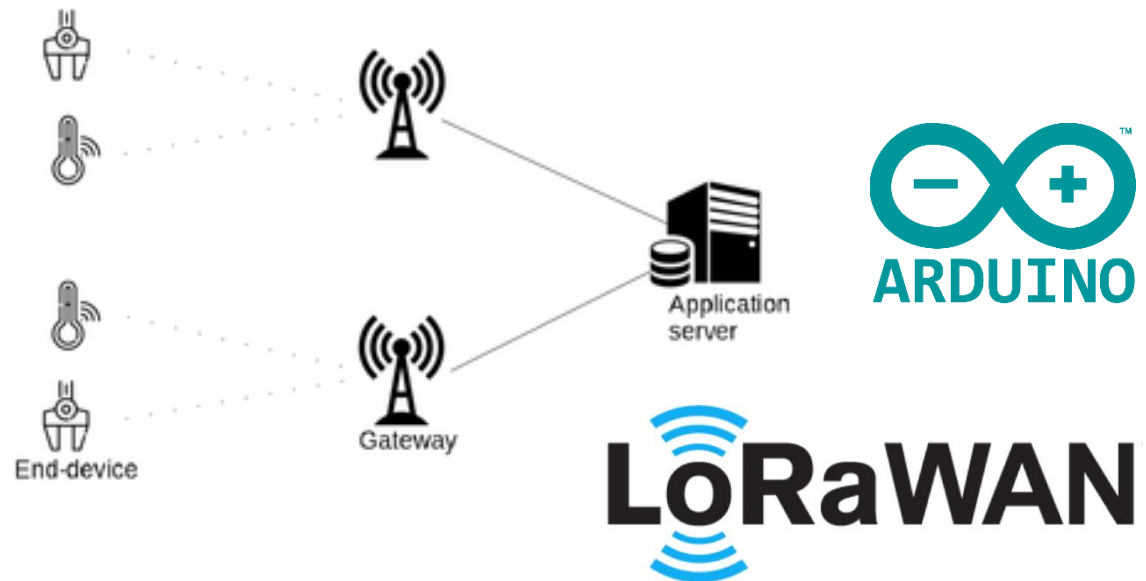
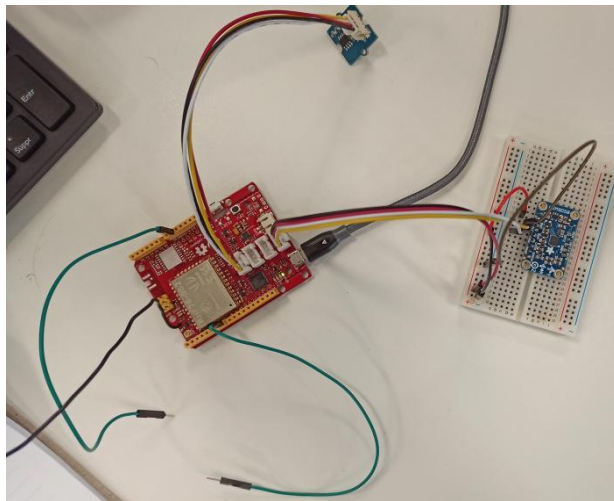


Description :

VR project developed with Robin Malmasson and Eurydice Ruggieri for the “Virtual Reality” course of Cédric Fleury. This whole project was centered around the thematic of “Data Visualization”. Our objectives were to **make a good use of virtual reality to make physics simulations** in a crash room and to find innovative ways to visualize data in a 3D space.

Seeduino – Internet of Things

Fev. 2020 – Mar. 2020

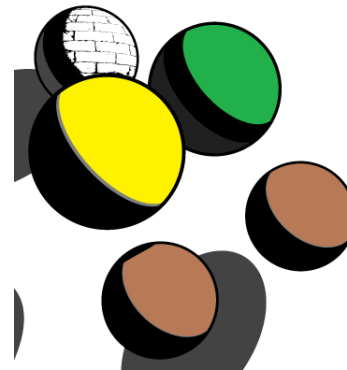
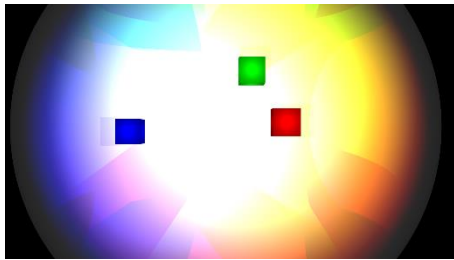
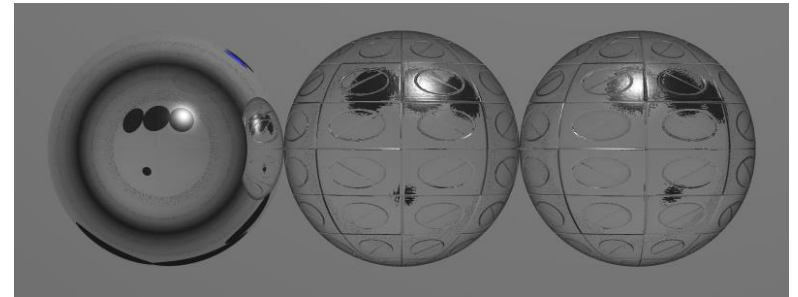
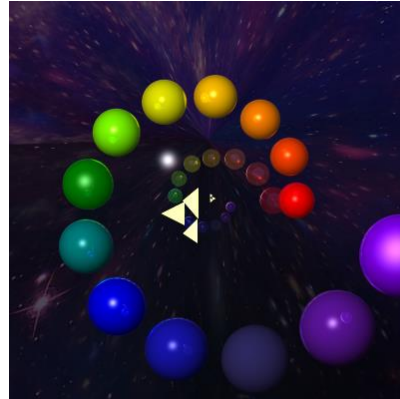
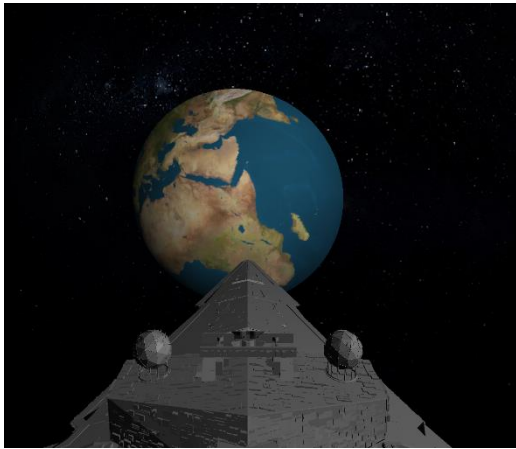


Description :

Project with Robin Malmasson for the “Internet of Things” course of Laurent Nel. Our objective was to create an end to end line from the Arduino’s captors to its processing by a server. To make it realistic, we tried to minimize the traffic by using Lorawan signal and Google’s Protocol Buffer to transfer minimal-sized data from the Arduino to the server.

C++ Raytracing Framework

Oct. 2019 – Jan. 2020

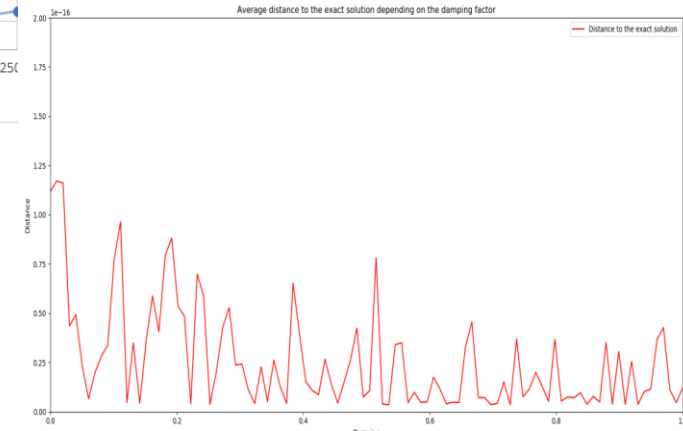
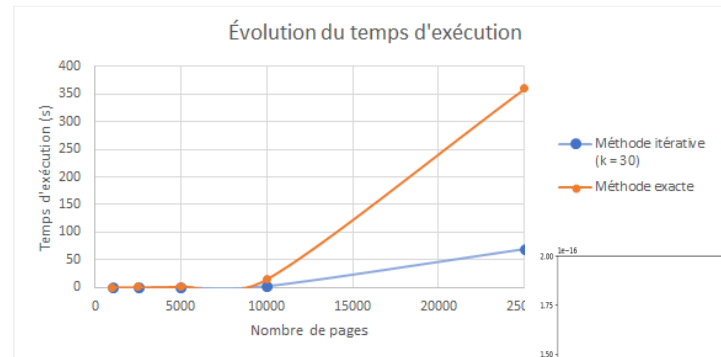
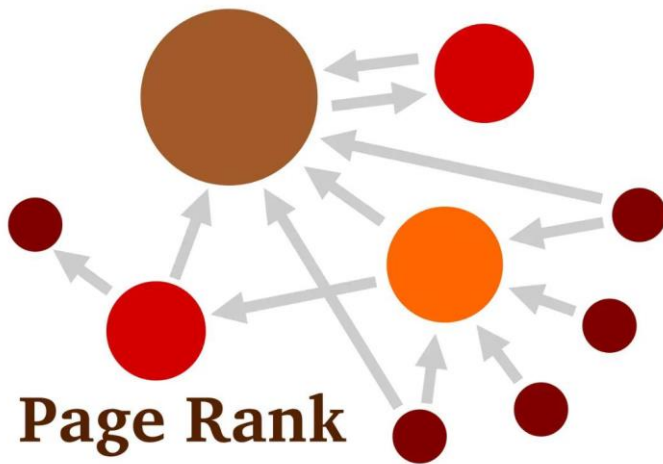


Description :

Raytracing project developed with My-Linh Ho for the “Advanced Graphics” course of Tobias Isenberg at Polytech Paris-Sud. The purpose of this project was to **discover the raytracing process** in graphics and its differences with the classic “shading” graphics programming.

Python PageRank

Oct. 2019 – Dec. 2019

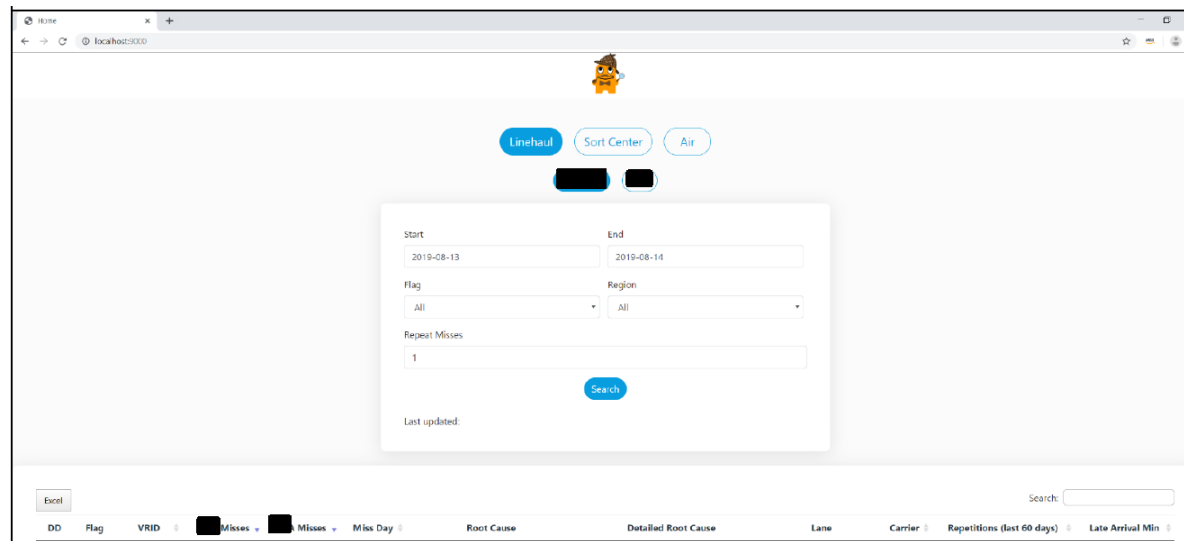


Description :

Data Science project built with Robin Malmasson. In this project, **we implemented Google's PageRank algorithm in Python in order to analyze it.** The interest of this analyze was to apply Data Science's methodology and to understand that every ranking algorithm has flaw and biases (that we can find thanks to data science analysis).

Amazon Miss Monitoring Tool

May 2019 – Sep. 2019

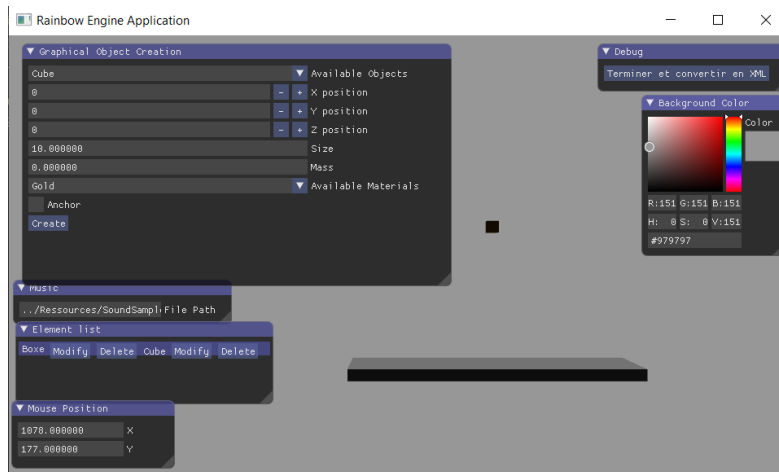


Description :

Project built during my 4-month internship at Amazon EU. This software was a monitoring platform to report transportation misses in Amazon's Logistic. This was my first **full-stack experience** as **I was fully in charge** of the project. This project also gave me a lot of experience with AWS (as I built it in AWS).

Rainbow Engine

Jan. 2019 – May 2019

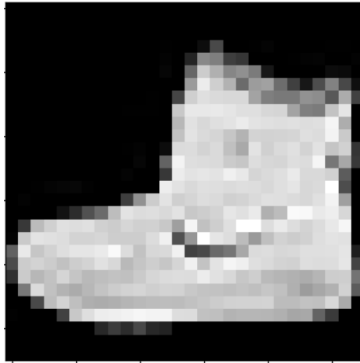
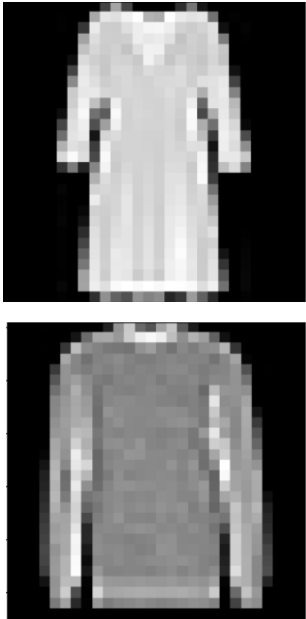


Description :

3D Engine built with 4 people. This OpenGL-based engine **supports all the basic features of a game engine** : **3D Graphics/Rendering, Sound Management** (OpenAL), **Physics, Level Editor**, etc. The main goal here was to test our skills (technical and management) with a complex software to develop. The main guideline was to abstract things as much as possible for the user in order to make the engine easy to use for beginners.

Python Image Recognizer

Jan. 2019 – Feb. 2019



```
def DistMin(PCAttraining, PCAdev) :

    #defining our start time
    start_time = time.time()

    # Defining our classes
    class0 = PCAttraining[trainingLabel == 0]
    class1 = PCAttraining[trainingLabel == 1]
    class2 = PCAttraining[trainingLabel == 2]
    class3 = PCAttraining[trainingLabel == 3]
    class4 = PCAttraining[trainingLabel == 4]
    class5 = PCAttraining[trainingLabel == 5]
    class6 = PCAttraining[trainingLabel == 6]
    class7 = PCAttraining[trainingLabel == 7]
    class8 = PCAttraining[trainingLabel == 8]
    class9 = PCAttraining[trainingLabel == 9]

    # Centroids of classes
    avg0 = np.mean(class0, axis=0)
    avg1 = np.mean(class1, axis=0)
    avg2 = np.mean(class2, axis=0)
    avg3 = np.mean(class3, axis=0)
    avg4 = np.mean(class4, axis=0)
    avg5 = np.mean(class5, axis=0)
    avg6 = np.mean(class6, axis=0)
    avg7 = np.mean(class7, axis=0)
    avg8 = np.mean(class8, axis=0)
    avg9 = np.mean(class9, axis=0)

    avg = [avg0, avg1, avg2, avg3, avg4, avg5, avg6, avg7, avg8, avg9]

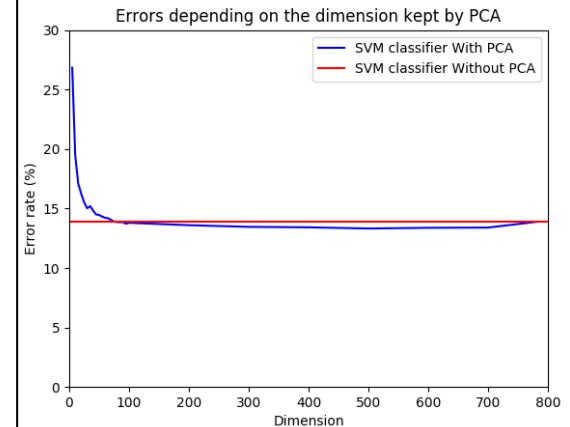
    #Compute the learning time
    learn_time = time.time()-start_time
    print('\tLearning time : ' + str(learn_time) + ' sec')

    start_time = time.time()

    #We try to guess the classes of our dev images
    classifierDevLabel = np.zeros(devLabel.shape)

    #For Each image...
    for i in range(0, devLabel.shape[0], 1):

        squareDist = np.zeros(10)
```



Description :

Project developed for the “Machine Learning” course of Claude Barras at Polytech Paris-Sud. This project is a program that learns how to recognize from low resolution images different types of clothes. The aim of this project was to **implement different classifiers and compare their performance**.

Console++ Age of War

Dec. 2018 – Jan. 2019

```
Tour : 0/200
```

```
F = Fantassin (10 pieces) | A = Archer (12 pieces) | C = Catapulte (20 pieces) | S = Super Soldat (pas en vente)
```

Eurydice :

```
Pieces : 10  
Base : 100/100
```

```
      T~~  
      |  
    /"  
   /'| T~~  
T~~ | T~ WWWW|  
| /"| | | |\T~~  
/"\ WWW /\ ' WW|  
WWWWW/\ / \/\|/"  
 /_\/]WWW[V_\]WWWWW  
" WWW' I_I 'WWW'  
| ' / - \| '  
' LI=H=LII '  
' | [ ] | '  
' | [ ] | '  
-###-|  
/_\
```

```
      T~~  
      |  
    /"  
   /'| T~~  
T~~ | T~ WWWW|  
| /"| | | |\T~~  
/"\ WWW /\ ' WW|  
WWWWW/\ / \/\|/"  
 /_\/]WWW[V_\]WWWWW  
" WWW' I_I 'WWW'  
| ' / - \| '  
' LI=H=LII '  
' | [ ] | '  
' | [ ] | '  
-###-|  
/_\
```

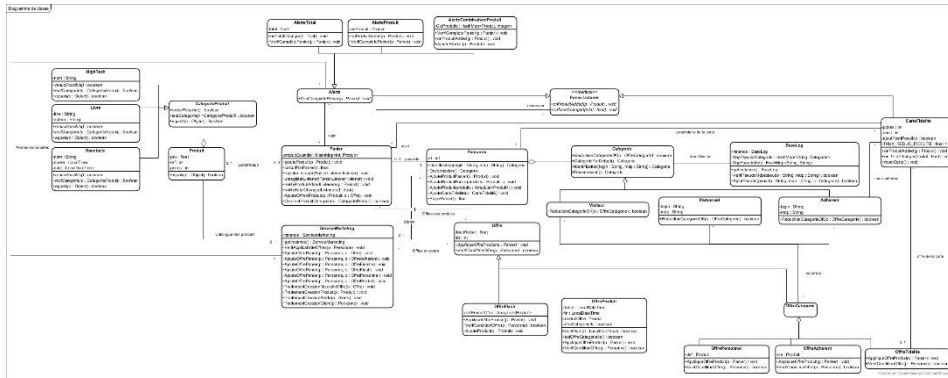
```
100%  
-----  
[BASE A] | | | | | | | | | | BASE B |  
-----
```

Que voulez vous faire (Recruter, Sauvegarder, Charger, Attendre, Detail du tour en cours) ? █

Description :

Project developed for the “Object-Oriented C++” course of Emmanuelle Frenoux at Polytech Paris-Sud. The aim of this project was to create an enhanced version of the Age of War game for the console using C++.

Oct. 2018 – Dec. 2019



```

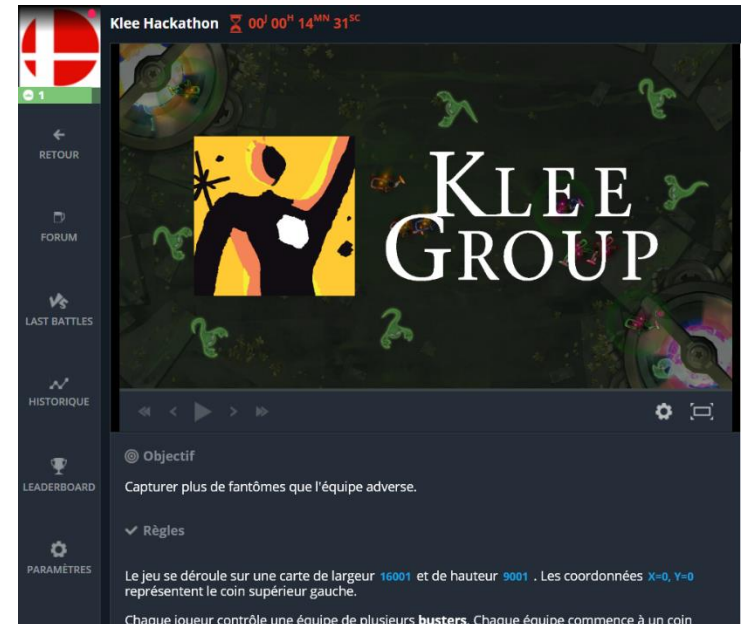
1 package laFac;
2
3 import java.time.LocalDateTime;
4
5
6 public class _Application {
7
8     //Methode qui initialise l'application et effectue les tests fonctionnels
9     private static void _INIT() {
10
11         //INIT de la BD des login/MMP
12         BaseLog.AjoutePseudo("Murphy", "123456", new Personnel("Murphy", "123456"));
13         BaseLog.AjoutePseudo("Frederic_Voisin_LRI", "ADA_Forever!", new Adherent("Frederic_Voisin_LRI", "ADA_Forever!"));
14
15
16
17         //Init de l'application avec quelques entrees
18
19         //On va partager un meme contenu pour 2 produits differents
20         Livre l4 = new Livre("Foreigner", "C.J. Cherryh");
21
22
23         Produit finaleCDP=null;
24         Produit livreCapital=null;
25         Produit livreComill=null;
26         Produit livreAda=null;
27         Produit livreAliens=null;
28         Produit livreAliensCollector=null;
29         Produit ecran=null;
30         Produit spectacleDrole=null;
31         Produit spectacleTragique=null;
32
33         try {

```

Project developed for the “Advanced Object-Oriented Programming & Design Pattern” course of Frederic Voisin at Polytech Paris-Sud. The aim of this project was to **create a fully modular system** and to get experience with the implementation in Java of some design patterns. The system was the **Java Back-end and API of a purchasing center** (like Amazon or E-Bay)

Klee Group Hackathon

Oct. 2018

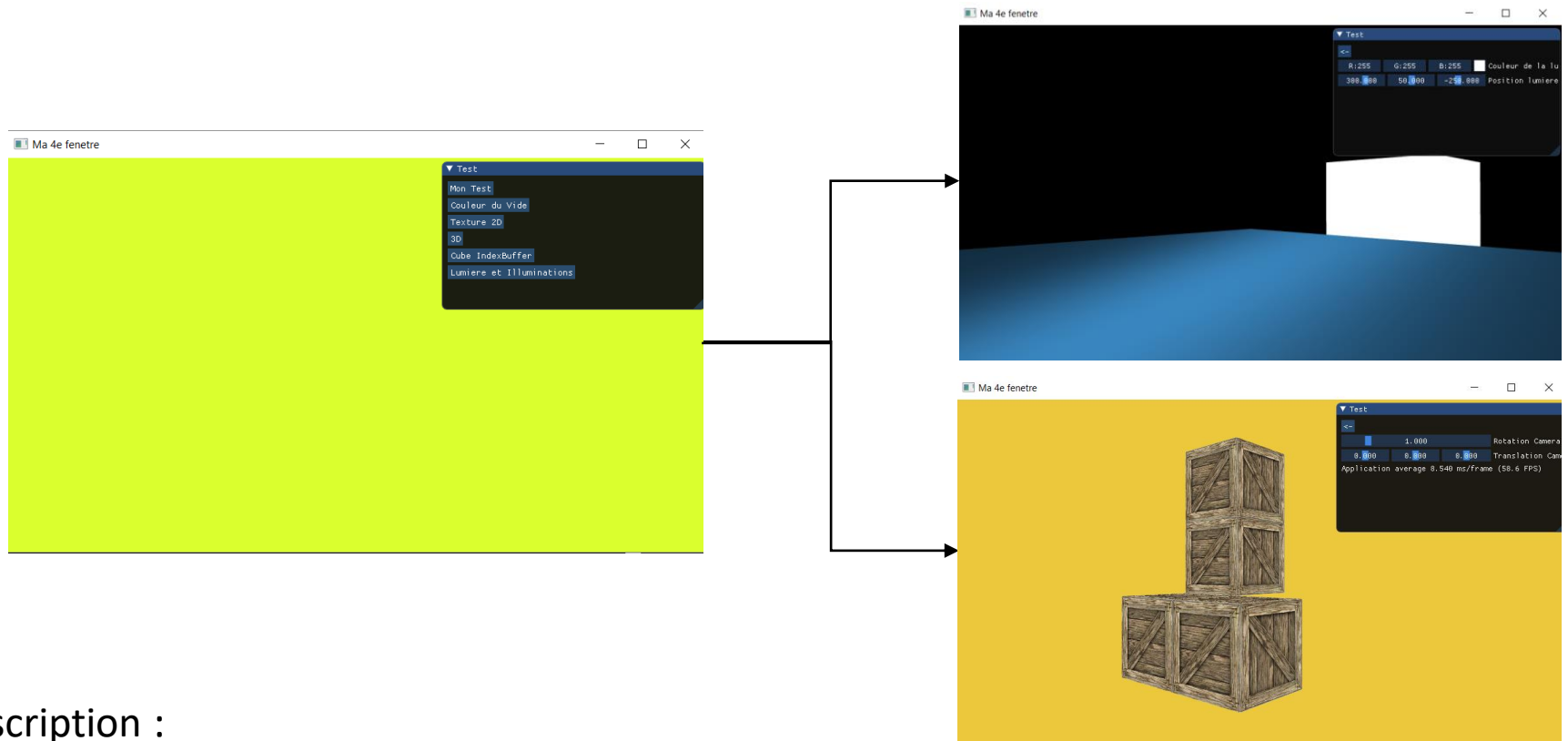


Description :

Hackathon organized by Klee Group. The event was organized on the CodinGame platform for teams of 4 people. The objective was to **program an A.I. for a "ghostbuster" game**. It was a worldwide competition opened to both students and professionals. It was my first hackathon and we ended up getting ranked 67th/116 in France.

OpenGL Testing Framework

Sep. 2018 – Oct. 2018

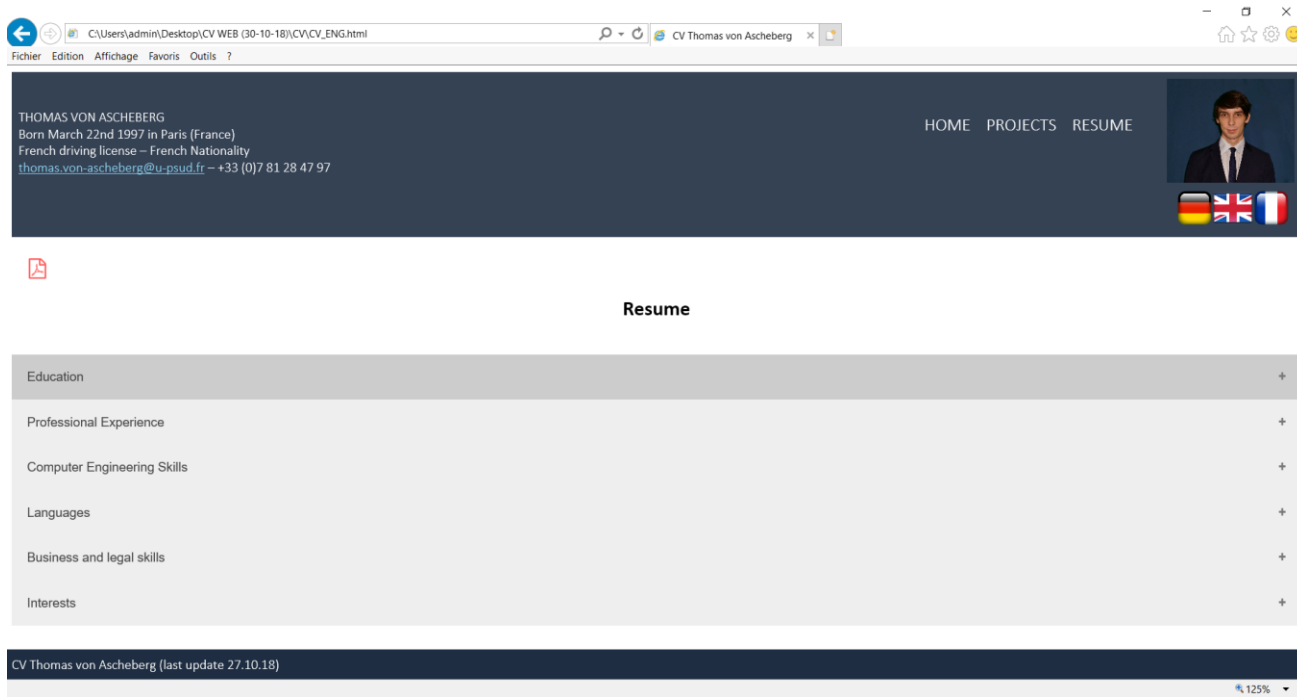


Description :

Personal project developed in C++ during fall 2018. This is an application that allows the user to **create small OpenGL applications** very easily. This project is a sandbox to test OpenGL code before implementing it in my 3D engine project (Rainbow Engine).

Web Resume

Jul. 2018 – Aug. 2018

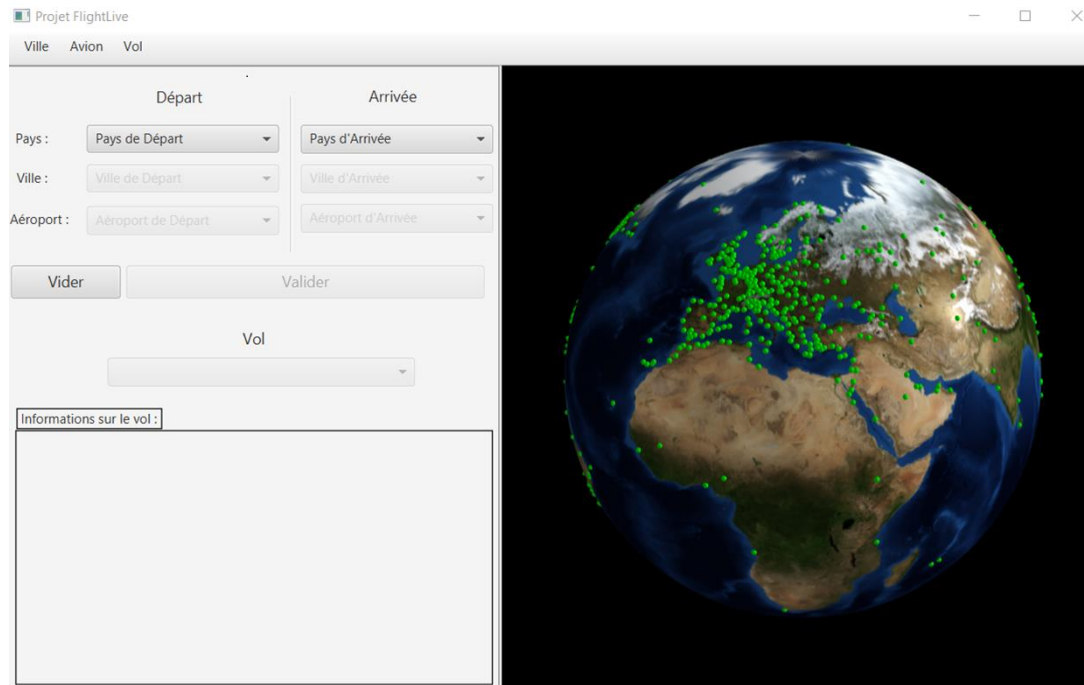


Description :

Personal project developed during summer 2018. This is an **interactive Resume/Portfolio**. My goal for this project was to deepen my web programming knowledges.

FlightLive

May 2018 – Jun. 2018

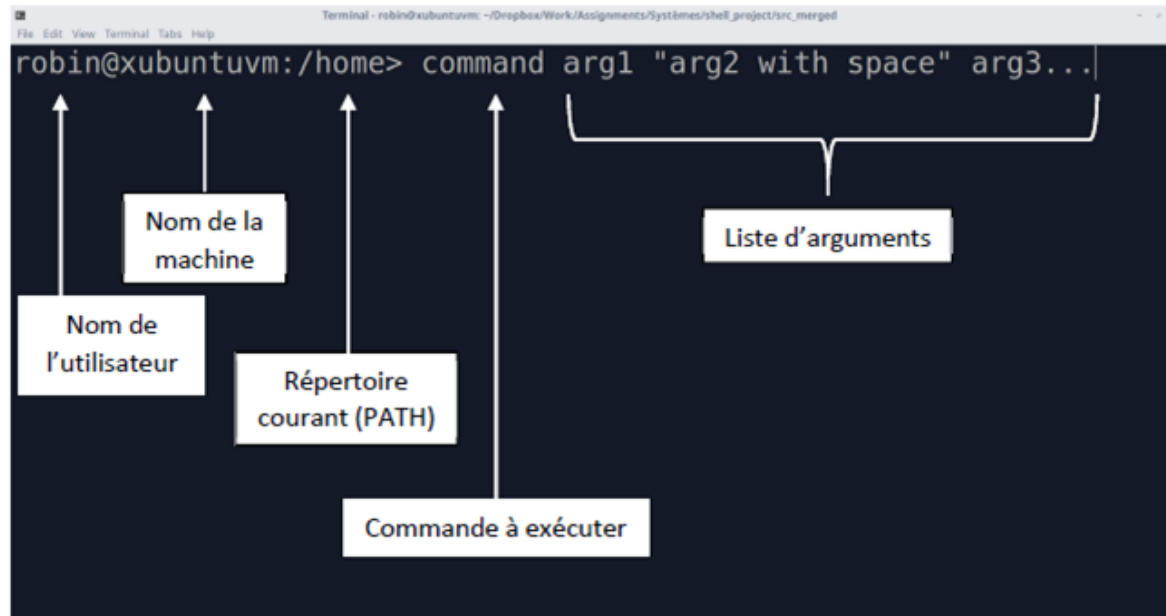


Description :

Project developed in Java/JavaFX as part of the "Human-Computer Interaction" course of Cédric Fleury at Polytech Paris-Sud. This application allows to consult in pseudo-real time the list of current flights in the world according to what the user wants.

Unix Shell

May 2018 – Jun. 2018



Description :

Project developed with Robin Malmasson as part of the "Operating Systems" course at Polytech Paris-Sud. The development was done in C in an Unix environment. The aim of this project was to create a fully functional Unix Shell with all its specificities (redirections, pipes, etc.)

Matrix ReAnimation

Dec. 2017 – Jan. 2018

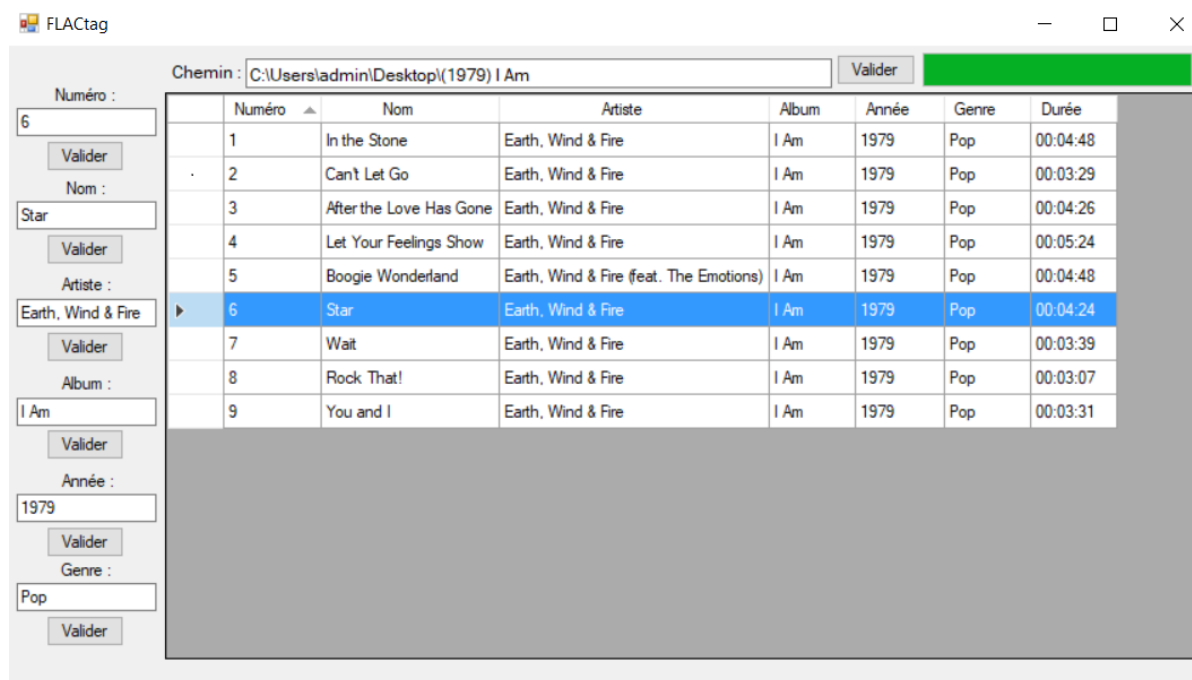


Description :

Project developed with Robin Malmasson and Eurydice Ruggieri as part of the course "Introduction to Computer Graphics" of Tobias Isenberg at Polytech Paris-Sud. The project was developed in C++. In this project we tried to **reproduce**, as closely as possible, the famous **Matrix bullet dodge scene with OpenGL**. It was **awarded in a competition organized by INRIA**.

FlacTag

Jun. 2017 – Aug. 2017

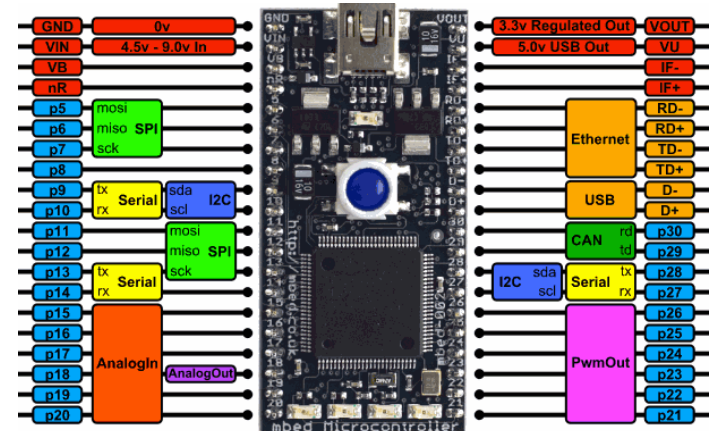
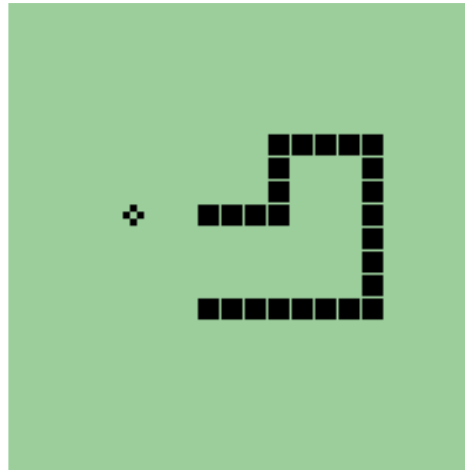


Description :

Personal project developed during the summer of 2017. This project is a **small utility for processing FLAC files**. The main goal of this project was to **discover the .NET framework and the Visual Basic programming language**. It is inspired by the MP3Tag free software.

Mbed Snake

Mar. 2017

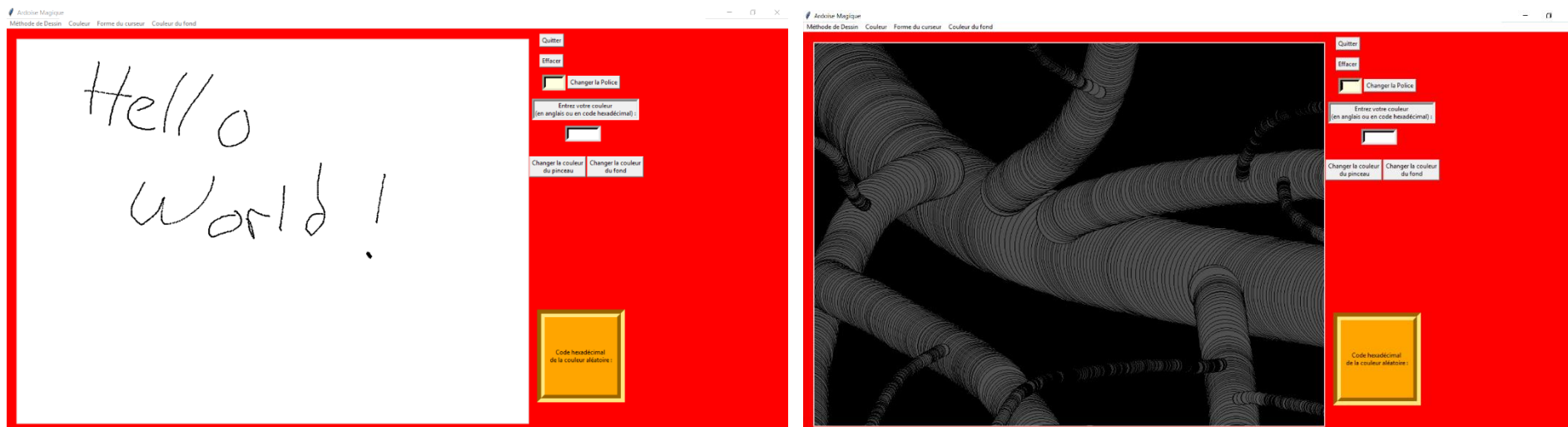


Description :

Project developed in C for the “Industrial Computer Science” course at Polytech Paris-Sud. This project is a **small “Snake” game developed on an Arm’mbed NXP LPC1768 board**. It was my first contact with embedded systems and their constraints.

Python Drawing Board

Jun. 2015 – Aug. 2015

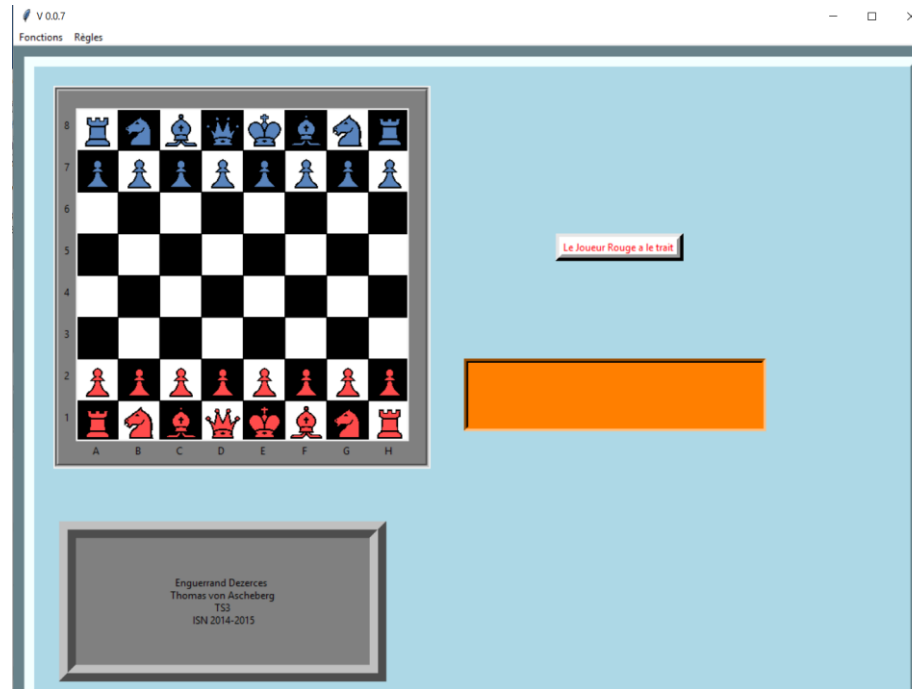


Description :

Personal project developed during the summer of 2015. This project is a small drawing software. The main goal of this project was to test my python skills at the moment and to improve my programming knowledges.

Python Chess

Dec. 2014 – Jun. 2015



Description :

Project developed in High School with Enguerrand Dezerces as part of the "Computer and Digital Sciences" (ISN in French) Baccalaureate exam. This project was my first programming experience. The goal of this project was to **program a classic chess game** (with all the official rules).