Axel PERIGNON
アクセル ペリニョン
Programmer, Research, Japan

I enjoy working on projects that awake my curiosity. I'm interested in a lot of fields, mostly related to R&D, but the most important to me is to focus on an interesting subject. I enjoyed working on very different subjects such as matrix computing for a game'camera in openGL, development of a cross-platform application in Python to manage medical data (client, server and security) and AI development in Python (Tensorflow/Keras) to predict the first horse on a given race. Currently, I really wish to work on developing an AI to map the neural signals of the human body sent from any sensory organ to the brain. There is a lot to do there to develop new HMI. I wish to work on fields related to research, biology, bigdata, AI to improve my skills so I could one day work on this project. Some files related to this works are available here: https://github.com/PepeWork/Reports

Education History
MASTER'S DEGREE

SEP 2017 - JUN 2018
Master's degree in Computer Sciences

Université de Toulon (France)

The last year of this degree was specialized in the development on mobile platforms.

I went back to University, after 5 years working on personal projects, to get a diploma giving me the possibility to work in the R&D field.

SEP 2011 - JUN 2012
Maîtrise in Computer Sciences

Université d'Aix-Marseille (France)

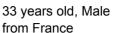French diploma delivered after successfully finishing the 1st year of the Master.
At this time the standard Computer Sciences courses were not available for the Master in the University of Toulon so I went to this University.

SEP 2008 - JUN 2011
Bachelor's Degree in Computer Sciences

Université de Toulon (France)

Personal Info

33 years old, Male
from France

Sanary, France

+33 768 344 455 Skype:
axel.perignon
perignon.axel@gmail.com

Visa

No Visa

Languages

- English: Fluent
- French: Native level
- Japanese: Basic

Skills

- C
- C++
- C#
- Python
- Php
- SQL
- Html/CSS
- XML
- Pic
- Octave
- Caml
- TclTk
- Bash
- Prolog
- Lua
- Kivy
- OpenGl
- jQuery
- Three.js
- Unity3D
- Java

Employment Type

- ¥4,000,000 / Year
- Available Now

Can legally drive in Japan

Yes

Work History
ENTRY LEVEL

FEB 2020 - MAY 2020
IT Consultant - R&D

EDI XPERTS (Japan)

Worked on mapping and documentation creation related to EDI.
Planned and documented the necessity and possibilities of implementing
AI to enhance projects productivity on the following using internal
services, such as Odoo:
EDI files analyze
Mapping generation
Documentation generation

The project had to be suspended after 3 months due to visa difficulties
related to the spread of the Covid-19.

JUN 2018 - JAN 2020
Developer/Freelance

Freelance (France)

After my internship, the laboratory where I worked contacted me for a
possible job with them and a private company. That company needed a
researcher from the laboratory to work on the development of a complete
solution to get custom medical orthopedic sole, using a new generation
3D printer capable to print one object with multiple different materials.
During this period, the laboratory and the company were discussing the
terms but unfortunately, in September, the company stopped interacting
with the lab.
I was mostly on Holiday from the end of June to the start of September.
The rest of the time I was waiting for my diploma to be available and
preparing the documentation needed for my personal project (AI).

Starting September, I developed an AI, Deep Learning type, with Python
using Tensorflow, Keras and Tensorboard.
I made scripts in Python to gather data over internet about horse races
then I prepared the data so they can be analyzed to predict the finish
order.
I used Sci-kit and Numpy to manage my data, Seaborn to visualize the
various differences in the predictions. I am still researching and
documenting myself to improve my AI.

The average number of horses on a race is 12 which would give
accuracy close to 8% on a random pick.
Up to now my Neural Network gives an accuracy of 20% either on the
validation or test dataset.

FEB 2018 - JUN 2018
Developer/Intern

Personal Interests

Horse riding, Japan, reading light-
novels, cooking, A.I., Biology,
Video games, Anime, Manga,
Creation.

Websites

Imath Laboratory - University of Toulon (France)

Development of a cross-platform application to manage medical data.
My 4 months internship, as part of the Master's last year in the University,
at the IMATH laboratory has been focused on the development of an
application that will help the lab to obtain medical data. The subject
covered depends from a work made in Fluid Modeling.

The following work has successfully been achieved:
-One application to do everything like managing administrators and
restricted accounts or medical data with their result and so on. The app is
available on PC (Linux) and Android without having to edit a lot of code. It
is developed in Python.
-The medical data are stored on a server, the database and
communication protocol were chosen and developed with the necessity
to keep anything patient related anonymized.

My supervisor was not readily available so I had the responsibility to
decide everything about the application development. This solution had
to be developed as a unique application usable by doctors of the hospital
sending us data with the app and scientists of the laboratory working on
those data. The app also had to be coded with Python and the
server/database in Php/Sql.
Everything else was to be decided by me then approved by my
supervisor.

JAN 2016 - SEP 2017

Developer/Freelance

Freelance (France)

Working on an asset in C# to release later on the Unity Store and
developing the related app for the App Store and Google Play.
The point of this asset was to be able to use only a smartphone to scan a
real life object and obtain its representation as a 3D model.
To make this project viable I desired to only use the following
functionalities available in every smartphone: camera, accelerometer,
gyroscope, compass.

Unfortunately after 6 months of work it appeared the recorded values
from the accelerometer are way too unstable. Sometimes a smartphone
reboot is even necessary to correct a faulty behavior, many smartphone
have defective compass after months of usage.
All of this meant too much work for one person and helped me realize I
am deeply interested in developing tools related to Research.
Later I spoke about my project to a Researcher I know from the
University of Toulon, he told me that a team is working on such a project
in a lab of the University, working alone on such a project is a challenging
endeavor.

I started then to look for a job in the R&D field, in France it appears most
job opportunities in Research are available after a Master's degree. I tried
to obtain a monbukagakusho scholarship organized by the Japanese
governments for French students and graduated.
I also went to Japan in September to discover more about this country

that I enjoy a lot.
The rest of the time was taken between helping a close friend organize
his wedding, helping my father in his job due to health issues, going on a
break, looking for a job in R&D.
I also updated assets and game I developed in Unity3D, I had to skip 2
years of update releases because of an internal error in the game engine
making shadows defectives if the camera matrix is modified. Hence when
Unity finally corrected this bug, I got a lot of code not working properly
with the new version of Unity and a lot of new assets to implement in my
game.

JAN 2014 - DEC 2015

Developer/Freelance

Freelance (France)

Development of a video game using C# on iOS/Android (Mounyouhnya)
with the Game Engine Unity.
The concept, characters, 3D models, gameplay, everything except the
game engine and the music have been designed and developed by me.

The game is available here: https://play.google.com/store/apps/details?
id=com.afeel.mouhnya

JAN 2013 - JAN 2014

Developer/Freelance

Freelance (France)

Development of a video game using Lua on Pc/Mac/iOS(Alrias Orbis)
using the Game Engine Shiva.

I created a one person company to work on personal projects starting
January since, in France, fiscal years start the 1st of January. Starting it
in September would have increase financial difficulties by having 3
months of work officially seen as a full year.
Before this I collected documentation on the resources necessary to start
this project.

First attempt to develop a video game by myself.
The game is in 3D and I developed a 2D map editor in Java to give an
easy way for the future community to create their own puzzles/maps.
I started the game development keeping in mind the possibility to add
multiplayer to the game but ultimately the company developing the game
engine stopped any update and the engine communications available
were extremely slow which was incompatible with a real time 3rd person
view game.

APR 2012 - JUN 2012

Developer/Intern

Imath Laboratory - University of Toulon (France)

Internship student at IMATH Laboratory.

The research subject consisted in modeling blood vessels in 3 dimensions with OpenGL from an image file (2D) obtained after a Doppler.
My job was to analyze the existing code to find and repair memory leaks. Some objects had holes, I had to find why and suggest a method to correct this behavior.
Ultimately, most of the functionalities were developed in different languages and necessitated to type a command line every time a researcher needed something, so I had to convert everything in C and make one single software with a graphical user interface in English.

I successfully did everything asked during those 2 months.