



# Alexis BRENON

## Machine learning engineer

December 20<sup>th</sup>, 1991 (25 y. old)

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## About

My name is **Alexis BRENON**. I am **25 years old** and I am going to defend my thesis about **Adaptive Decision Making in Smart-Home**. I am seeking for a position as a **machine learning engineer** to develop new technologies and bring them to the mainstream market.

## Skills

### Languages

French: mother tongue

English: professional efficiency

### Hard skills

ASM Assembly

Bash

C/C++

Docker

Git

HTML/CSS/JS

Java

LaTeX

Lua

Python

### Soft skills

Collaborative

Inventive

Persevering

Rigorous

## Career

On going PhD Student in computer sciences

Université Grenoble Alpes

2014 M.Sc (2<sup>nd</sup> y.) in software engineering with honors

Université Joseph Fourier

Sandwich course as software engineer

STMicroelectronics

2013 M.Sc (1<sup>st</sup> y.) in computer sciences

Aix-Marseille Université

Software engineer intern

Wyplay

2012 B.Sc in computer sciences with honors

Université Claude Bernard

Software developer intern

Dipiom Media

2009 Scientific A level with honors

Lycée Rosa Parks (69)

## Achievements

### ARCADES

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The *Adaptive Reinforced Context-Aware Deep Decision System* is an adaptive decision-making system for smart-homes.

- Unified representation of heterogenous sensors
- Deep learning (Torch) for feature extraction
- Long life learning through reinforcement learning

M. Michel VACHER (Univ. Grenoble Alpes) — +33 (0)4.57.42.14.38

### Publications

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Research publications in national and international conferences.

M. Michel VACHER (Univ. Grenoble Alpes) — +33 (0)4.57.42.14.38

[cv.archives-ouvertes.fr/alexisbrenon](http://cv.archives-ouvertes.fr/alexisbrenon)

### StreamRecord

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Recording and segmentation of audio stream on Linux (available with pip).

- Multi-threading
- Linux components understanding (PulseAudio, X11, Dbus)

[github.com/AlexisBRENON/deezer\\_record](https://github.com/AlexisBRENON/deezer_record)

### TraceDecoder

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Embedded systems execution traces analyser improvement

- Collaboration with Canadian, English and Maroccan teams
- Binary data analyse and database storing

M. Serge DePAOLI (STMicroelectronics) — +33 (0)4.76.92.56.20

### PiPy MIPS port

ASM /

Port Python interpreter with Just In Time compiler for MIPS architecture.

- Transliteration of the Python syntax to MIPS assembly code

M. Aurèle TRAYNARD (WyPlay) — +33 (0)4.91.45.71.80

### Self-hosted personal server

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Debian based server: multimedia (Kodi), cloud (OwnCloud), raspberry pi (Boblight), etc...

- System administration : access, shares, filesystems (RAID)
- Docker based services encapsulation

## Open-source multimedia player



Development of a non-technical multimedia player based on open-source components.

- Find and compare existing solutions
- Demonstrations and usability tests
- Plugins development to fulfill user expectations

M. Éric BOISSEAU — +33 (0)9.72.22.88.52

## Open-source contributions



Contributions to open-source projects as Chromium or AwesomeWM.

[github.com/AlexisBRENON/](https://github.com/AlexisBRENON/)

[www.chromium.org/Home](https://www.chromium.org/Home)

## Life-game (cellular automaton)



Pair working for the development of a cellular automaton graphical application.

- Object oriented design and development
- AWT graphical user interface and web applet

[github.com/AlexisBRENON/life-game-lif13](https://github.com/AlexisBRENON/life-game-lif13)

## Stellody



Pair working for the development of an audio player with 3D display.

- GTK+ user interface with Mac and Linux compatibility
- Signal processing for musical analysis

[github.com/AlexisBRENON/stellody](https://github.com/AlexisBRENON/stellody)

## Vinyl



Beamer Latex like web framework for scientific posters and talks.

- Automatic layout with flexbox
- Bibliography (bibtex, bibjson) parsing and rendering

[github.com/AlexisBRENON/Vinyl](https://github.com/AlexisBRENON/Vinyl)

## Hyperion2Boblight



Server-client application available through `pip` for Boblight based AmbiLight like systems.

- Communication protocol retro-engineering
- Packaging and distribution on a widely used platform

[github.com/AlexisBRENON/hyperion2boblight](https://github.com/AlexisBRENON/hyperion2boblight)