Mael Abgrall

Software engineer + Msc. AI
Interested in discovering new things !

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in
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For more detail and complete list of skills projects, etc, please check my website on **https://maelabgrall.github.io/**

Studies/Diploma:

2018 – 2019 *(1 Year)*	MSc. Artificial intelligence – Heriot Watt University (UK) **(Artificial Intelligence, Biologically inspired computation, 3D graphics, Data mining & machine learning)**
2013 – 2018 *(5 Years)*	Master of engineering (equivalent to master 2) **-** ESME Sudria, (France) engineering school of electronics and informatics. Specialisation computer science (**image processing, virtual & augmented reality, big data**, etc) *(full course list available on my website)*
2016 (6 Months)	Exchange program **–** Vidzeme University of Applied Sciences (Latvia)

Skills:

My main language is Python followed by C++, and I'm interested in learning **Rust**

Python	C / C++	Windows (daily usage)
Java / JEE	DB & Queries (SQL & NoSQL)	Linux (daily usage of Fedora)
C# / ASP.NET	JavaScript / NodeJS	Git / vsCode / Bash

I have also an average math & electronic level

Working experience:

2018 (5 Months)	**Research intern in Artificial intelligence** School of Mines ParisTech (Mathematical morphology) (Paris, **France**) - Neural network security (**Adversarial examples**) - Active learning for **deep neural networks** in image segmentation
2017 (3 Months)	Internship in **Business Intelligence & Web development** IT-CE (Paris, **France**) Development of monitoring tools for software architects, & a smart-wiki website based on word documents (**MSSQL, PowerBi, ASP.NET**)
2016 (1 Month)	Internship in the IT department of a hospital Centre Hospitalier Princesse Grace (**Monaco**) Development a software with **NAO** to interact with old people with disabilities
2014 – 2016 (multiple mission)	Science educator (UAV & drones) **-** OSI (Objectif Science International) NGO Multiple locations in **France and Switzerland**.

Personal involvement

2016 – 2017 *(1 year)* *2015 - 2016* *(7 months)*	President in two students' art club Bureau Des Arts ESME Lyon & Bureau Des Arts ESME Paris
2010 – present *(8 years)*	Amateur photographer Mab Photography (Meuuul) Creation of a photography blog & voluntary work in photography

Latest projects / school work:

2018 – 2018 (coursework)	- Creating a 3D scene using OpenGL (**C++, OpenGL**) - Naïve implementation of a perceptron (**Python**) - Naïve implementation a of genetic algorithm and particle swarm optimization using multiple benchmark functions (**Python**) - Analysis of multiple query type for active learning (**Python**) - Reinforcement learning & Markov decision process on a tic-tac-toe (**Java**)
2017 - 2018 (6 Months)	Image segmentation for medical use. (**Python, OpenCV**)
2017 (6 Months)	Making a voice Recognition software with Deep Learning techniques (**C++, no library used**)
2017 (6 Months)	Making a procedurally generated map for a game (**C++, Qt**).
2016 (6 Months)	Creation of a basic image editor using multithreading (**C++, Qt**)
2016 - 2017 (practical work in school)	- Image processing in Matlab - Data compression algorithms - Creation & edition of database in SQL, NoSQL & basics of Hadoop MapReduce - Creation of web app in Angular 2+ - Creation of a IRC chat (NodeJS) - Various OOP oriented practical work (Python, Java, NodeJS) - Simulation of a digital clock in VHDL - Creation of a basic program using an 8bit PIC (C)

Languages:

- French (native)
- English (TOEIC 915 / IELTS 6.5, daily usage)
- Spanish (basic level)

Hobbies:

- Many international travels with friends or alone (Europe, America, Africa, Oceania).
- Many individual & team sports
- From 2005 to 2013, regular competitions (mainly in ATV, skiing and swimming).
- New technologies
- Music & Cinema