Alexandre Heuillet

Deep Learning PhD candidate at Paris-Saclay University.

Visiting Student at MIT.

Looking for an industrial research position starting November 2023.

- 25 yo
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Languages

French: Mother tongue

English: Professional level (TOEIC 990 / IELTS 7.5)

Japanese: Beginner level

Skills

Languages: Python, C, C++, C#, Shell Script, Java, Javascript, HTML, CSS, PHP

Machine Learning: PyTorch, Keras, TensorFlow, Transformers, GANs, CNNs, Reinforcement Learning, Neural Architecture Search, AutoML

Multimedia: Unity

Databases: MySQL, SQLite, MongoDB

Education

Since October 2020	**Paris-Saclay University**	Evry, France

Computer Science PhD on Automatic Deep Learning with a focus on Neural Architecture Search for Computer Vision. Joint work with researchers of MIT Mechatronics Research Lab. Graduation expected in October 2023.

2017 - 2020	**ENSEIRB-MATMECA**	Bordeaux, France

Software engineering curriculum (MSc in Engineering). Major in Artificial Intelligence.

2015 - 2017	**CPBx**	Bordeaux, France

French intense math and physics preparation curriculum before entering a High Engineering School.

2012 - 2015	**Lycée des Graves**	Gradignan, France

High School diploma (baccalaureate) obtained with high honors.

Experience

01/2023 - 05/2023	**Massachusetts Institute of Technology**	Cambridge, MA, USA

Visiting Student at MIT Mechatronics Research Lab. President of MIT Visiting Student Association (VISTA)

Since 2020	**Paris-Saclay University**	Evry, France

Teaching Computer Science (algorithmics, Python programming) and AI (Deep Learning, Reinforcement Learning) courses for international master's students (teaching language: English).

02/2020 - 07/2020	**Groupe Renault**	Paris, France

Research intern in the ADAS department. Creation of a GAN-based Python application that generates photorealistic street videos from segmented images to test onboard cameras.

06/2019 - 08/2019	**Kyushu University**	Fukuoka, Japan

Research intern in an AI and Robotics laboratory. Implementation of a Microsoft Hololens app dedicated to helping train nursing staff to provide care to elderly people.

04/2018 - 04/2019	**Aquitaine Électronique Informatique**	Bordeaux, France

Director of the information systems for ENSEIRB-MATMECA's Junior-Enterprise. Maintenance and improvement of software and websites, technical assistance and computer consulting, team management.

Publications

2023	A. Heuillet, H. Tabia and H. Arioui. "NASiam: Efficient Representation Learning using Neural Architecture Search for Siamese Networks". *Accepted at INNS DLAI 2023*.
2022	A. Heuillet, H. Tabia, H. Arioui and K. Youcef-Toumi. "D-DARTS: Distributed Differentiable Architecture Search". *arXiv preprint*. Submitted to *Pattern Recognition Letters*.
2022	A. Heuillet, F. Couthouis and N. Diaz Rodriguez. "Collective eXplainable AI: Explaining Cooperative Strategies and Agent Contribution in Multiagent Reinforcement Learning with Shapley Values". *Computational Intelligence Magazine*, IEEE
2021	A. Heuillet, F. Couthouis and N. Diaz Rodriguez. "Explainability in Reinforcement Learning". *Knowledge-based Systems*, Elsevier