Fabien Couthouis

Engineer in "Cognitique", Major in Artificial Intelligence

About me

Fond of new technologies, I am looking for a job in machine learning field. In my life, a lot of my time cooking and doing sport (hiking, powerlifting, mixed martial arts).

Contact Information

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Skills

- Machine learning
- Deep Learning (Tensorflow, Pytorch)
- Symbolic AI (research algorithms, constraint programming, fuzzy logic)
- Big data, data visualization
- Natural language processing, images processing.
- Human factors, user experience (UX)
- Programming languages: C++, C#, Javascript, Matlab, R, Python, SQL
- Other: Git, Unity, SCRUM agility

Other

- 🔤 French (native), TOEIC (895 points)
- 🚗 Driving license
- 👤 https://fabien-couthouis.github.io
- **in** /fabien-couthouis-56804b187

Education

2017 - 2020 *ENSC - Bordeaux INP, France*	**Engineer's Degree in Cognitive Engineering** *- Major in Artificial Intelligence (partnership with ENSEIRB-MATMECA)* Generalist school integrating information sciences, knowledge sciences, cognitives sciences and human factors, applied to systems design.
2015 - 2017 *Cycle Préparatoire de Bordeaux, France*	**Two-years intense Mathematics and Physics curriculum ("CPGE")** Theoretical knowledge in mathematics, physics and computer science.
2012 - 2015 *Lycée Val de Garonne, France*	**Scientific (french "Baccalaureat")** *- Major in mathematics* With honours.

Professional Experiences

February - July, 2020 *Thales AVS, RHS lab - Mérignac, France*	**Programming Interfaces for Genetic Fuzzy Trees (internship)** • Conception of tools to simplify the use, the integration, the diffusion and the explainability of a proprietary technology based on fuzzy logic, developed by the startup Psibernetix (acquired by Thales in 2019). • Interfaces to bring compatibility with reinforcement learning environments (Gym / Unity ML-Agents). • Application within a proof of concept in collaboration with other teams: avoid module for autonomous drones.
May - August, 2019 *Covéa, "Conseil Digital" service -Niort, France*	**Automation of Insurance Business Processes (internship)** • Experiments around natural language processing for automatic redirection of client emails. Data processing, creation and testing of both deep learning models and a proprietary expert system. • Dissemination around the theme of machine learning to other teams. • Collection of needs for the fraud detection service. • Implementation of user tests and design of a decision tree for a voicebot used to make phone appointments.
June, 2018 *Institut des Métiers de la Santé, HACS lab - Bordeaux, France*	**Assessment of a cognitive impairment screening solution (internship)** • Obtaining sources of improvement from occupational therapists and students who have used the software: interviews, user testing and focus group. • Report on the user experience and suggestions to improve the software.

Other Experiences (more on my Github page!)

2019-2020 *Inria - ENSTA ParisTech*	**Publications: Explanability and Reinforcement Learning** • Survey about explainability in deep reinforcement learning. • Method explaining the contributions in a multi-agent context (in progress).
2017-2018 *ENSC*	**Smart Mirror** • User centered design of a smart mirror for students. It allows the display of contextualized information (such as the weather, public transport schedules...) according to the student timetable.
2016-2017 *Cycle Préparatoire de Bordeaux*	**Virtual Reality Game** • *Tower defense* game developed using Unity game engine. • Synthesis paper on virtual reality and human factors.