

Aurelien Werenne

☎ +32493752251 • ✉ aurelien.werenne@hotmail.com
🌐 awerenne.github.io • 🌐 awerenne • in aurelienwerenne

Experience

Dataiku

Paris, France

Research Engineer (intern)

02/2020 – 06/2020

Designing, implementing and integrating a Fuzzy Join matching algorithm to the DSS software.

ID Trust Medical

Leuven, Belgium

Production Engineer (intern)

04/2017 – 12/2017

Systematised and automatised several processes (e.g. inventory management) in order to optimise the production flow.

Infinia

Brussels, Belgium

Software Developer (freelancer)

03/2016

Built a risk profiling system in the area of life insurances, where the system determines the investment profile of a client based on its answers to a list of calibrated questions.

Projects

Master Thesis : Energy-based Multi-Modal Attention (honors : *summa cum laude*)

In realistic situations, multi-modal neural networks could potentially receive input data with varying levels of perturbations among the modes, which may decrease the quality of the inference process. I developed a novel attention mechanism to tackle this unsolved problem. It obtained promising results, up to a 20% performance gain for unseen perturbations applied to real-world data. Implementation : Python, SciPy, PyTorch. Links : [report](#), [github](#).

Personal Project : Unknown environment mapping using multiple robots

I designed, constructed and implemented two robots from scratch. Their objective being the exploration and mapping of unknown environments as fast as possible. One of the main challenges was to induce a cooperative behaviour between the robots. The resulting system achieved a 30% speedup on average with respect to the mono-robotic exploration. Implementation : C++, Python, PyGame. Links : [video](#), [github](#).

Education

Université de Liège (ULiège)

Liège, Belgium

Master of Science in Engineering

Graduating September 2020

- Computer Engineering major, Electrical Engineering minor.
- Event Coordinator at Erasmus Student Network.
- Exchange student at Universidade de São Paulo (Brazil).

Skills

Programming skills: Python (advanced), C (advanced), C++ (intermediate), Matlab (intermediate), SQL (intermediate) and Java (prior experience).

General expertise: Algorithms, Robotics, Deep Learning, Machine Learning and Statistics.

Languages

French: Native proficiency.

Dutch: Native proficiency.

English: Full professional proficiency.