

# Aurelien Werenne

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## Education

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<b>University of Liège</b> <i>Master in Computer Science and Engineering with focus on Intelligent Systems</i>	<b>Liège, Belgium</b> 2016–2019
<b>Universidade de São Paulo</b> <i>Exchange semester (Erasmus Mundus)</i>	<b>São Paulo, Brazil</b> 2018
<b>University of Liège</b> <i>Bachelor of Science in Engineering</i>	<b>Liège, Belgium</b> 2012–2016

## Projects

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### 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 designed an innovative approach to tackle this unsolved problem. It obtained promising results, up to a 20% performance gain on real-world perturbed data. The report and code can be found on my Github profile (see header).

### Personal Project : Unknown environment mapping using multiple robots

Two robots were constructed and implemented 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. As a result, it achieved a 30% speedup on average, with respect to the mono-robotic exploration. The demonstration video is available on my portfolio website (see header).

## Experience

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<b>ID Trust Medical</b> <i>Production Engineer (intern)</i>	<b>Leuven, Belgium</b> 2017
Systematised and automatised several processes (e.g. inventory management) in order to optimise the production flow.	

<b>Erasmus Student Network</b> <i>Event Coordinator (volunteer)</i>	<b>Liège, Belgium</b> 2016-2017
Organised cultural trips, sporting events, conversation tables and parties to facilitate integration of university exchange students ( $\pm 900$ per year).	

<b>Infinia</b> <i>Software Developer (freelancer)</i>	<b>Brussels, Belgium</b> 2016
Developed 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.	

## Skills

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

**General expertise:** Robotics, Algorithms, Deep Learning, Machine Learning and Artificial Intelligence.

## Languages

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**French:** Native proficiency.

**Dutch:** Native proficiency.

**English:** Full professional proficiency.

**Portuguese:** Elementary proficiency.