

# 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 developed a novel 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

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. 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
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.	

## 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.