Curriculum vitae

PERSONAL INFORMATION

Antoine Wehenkel

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Date of birth 28 Sep 1995 | Nationality Belgian

PERSONAL STATEMENT

"We know the past but cannot control it. We control the future but cannot know it."
Claude Shannon

In 2018, I was graduated in computer engineering (Msc) from ULiège. I spent my last year of study at Ecole Polytechnique Fédérale de Lausanne (EPFL) as an exchange student. There, I did my **master's thesis** in the laboratory of Professor Jean-Yves Le Boudec, which was about the parameters estimation of electrical distribution networks' lines. I am now a PhD student (FNRS Research Fellowship) in machine learning at ULiège (Belgium) under the supervision of Professor Gilles Louppe. The subject of my thesis lays at the intersection between likelihood free inference and deep learning.

My main research interests revolve around **Statistics, Machine Learning** and **Information Theory**.

EDUCATION AND TRAINING

Oct 2018–Present

PhD candidate in Machine Learning

ULiège, Liège (Belgium)

Deep Learning for Intractable Inverse Problems in Science

The primary goal of this research project is to develop deep learning algorithms for solving intractable inverse problems, as ordinarily found in a broad class of scientific disciplines.

Sep 2016–Jun 2018

Master in engineering, Intelligent systems

ULiège, Liège (Belgium)

Summa Cum Laude

Sep 2017–Jun 2018

Exchange student in the master of data science

EPFL, Lausanne (Switzerland)

Average score: 5.8/6

Sep 2013–Jun 2016

Bachelor in engineering (major in computer science, minor in electrical engineering)

ULiège, Liège (Belgium)

Magna Cum Laude

WORK EXPERIENCE

Jul 2017–Sep 2017

Student Worker

Laboratory of Immunology, ULiège

Development of an RFID based tracking system for fish. It required to chose the right hardware components, to program micro controller (Arduino), to create a web server (Django and PostgreSQL) and a monitoring system (Python).

Jul 2016–Apr 2017   **Student Researcher**

Smart grids laboratory, ULiège

Work in the smart grids research lab, in collaboration with Engie. The purpose of my work was to develop optimisation algorithms applied to electric vehicle fleet integration in the electrical network.

Sep 2016–Dec 2017   **Student instructor**

EPFL & ULiège

Student instructor for the following courses:

- Electronic 2 (Prof. Kayal - EPFL)
- Data Structures and Algorithms (Prof. Geurts - ULiège)
- Analysis and Design of Electrical Measuring Systems (Prof. Vanderbemden - ULiège)
- Computer Organisation (Prof. Boigelot - ULiège)

PUBLICATIONS & AWARDS

Publications
- Unconstrained Monotonic Neural Networks, A. Wehenkel, G. Louppe - Submitted to Neural Information Processing Systems 2019
- Parameter Estimation or Three Phase Untransposed Short Transmission Lines from Synchrophasor Measurements, A. Wehenkel, A. Mukhopadhyay, J.-Y. Leboudec, M. Paolone - Submitted to IEEE Transactions on Instrumentation and Measurement
- Recurrent machines for likelihood-free inference , A. Wehenkel, A. Pesah, G. Louppe - MetaLearn Workshop @ Neurips 2018
- An App-based Algorithmic Approach for Harvesting Local and Renewable Energy Using Electric Vehicles, A. Dubois, A. Wehenkel, R. Fonteneau, F. Olivier, D. Ernst - ICAART 2017

Honours and awards
- FNRS Grant (Research Fellowship; 2018 - 2022)
- Best Master's thesis award from AIM (2018)
- Best Master's thesis award from AILg (2018)
- Physics award for outstanding student (2013)
- Physics award at belgian olympiades (2012 and 2013)

PERSONAL SKILLS

Mother tongue   French

Other languages

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
English				
B2	C1	B2	B2	B2

Digital skills
- Excellent programming skills in Python, C, C++, Matlab, Java and Scheme.
- General expertise in Optimisation, Statistics, Machine Learning, Artificial Intelligence, Deep Learning, Data Mining.