Alexandre Vérine

Ph.D Student in AI at Université Paris-Dauphine
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PUBICATIONS

On the expressivity of bi-Lipschitz normalizing flows
Alexandre Vérine*, Benjamin Negrevergne, Fabrice Rossi, Yann Chevaleyre*
ICML Workshop on Invertible Neural Networks, Normalizing Flows, and Explicit Likelihood Models (INNF+2021)

TEACHING

Mathematics for Data Science 2021
Université Paris-Dauphine Lectures/Seminars

Artificial Intelligence 2021
Université Paris-Dauphine Seminars

Mathematics for Data Science 2020
Université Paris-Dauphine Seminars

Information System Engineering 2020
Université Paris-Dauphine Lectures/Seminars

RESEARCH INTERNSHIPS

LAMSADE September 2019 - June 2020
Université Paris-Dauphine Paris, France
- Part-Time Research internship on generation of Advbersarial Attacks with Invertible Neural Networks.

Machine Learning & Data Lab April 2019 - August 2019
Wavestone Paris, France
- Master's degree research internship on Invertible Neural Networks as a defense against Adversarial Attacks.

Advanced Structures & Composites Center May 2018 - August 2018
University Of Maine Orono, Maine, USA
- Research internship on organic photovoltaics materials. Developed a portable characterizing device for photovoltaic wire. Designed military application for the photovoltaic wire woven fabric.

EDUCATION

PhD in Artificial Intelligence September 2020 - Present
Université Paris-Dauphine Paris, France
- 3 years contract with LAMSADE Laboratory.
- Subject: Invertible Neural Networks.
- Advisors: Yann Chevaleyre, Fabrice Rossi, Benjamin Negrevergne.

M.S Quantitative Economics September 2019 - June 2020
Université Paris-Dauphine Paris, France
- Last year of ENS Paris-Saclay as a multi-disciplinary one year program.
- Related Courses: Microeconomics, Macroeconomics, Econometrics, Game theory, Industrial Organization.

M.S. MVA - Mathematics, Vision & Learning September 2018 – April 2019
École Normale Supérieure Paris-Saclay Cachan, France

- Related courses: Reinforcement Learning, Deep Learning, Statistical Learning, Kernel Methods, Natural Language Processing, Astrophysics data processing, Probabilistic Graphical Models.
- Awarded with very high honors.

M.S. Electrical Engineering September 2017 – May 2018
École Normale Supérieure Paris-Saclay Cachan, France

- Related courses: Probabilities, Computing, Energy Processing, Signal Processing, Telecommunication, Automation.
- Research project: Thermic modelisation of a solar powered, self commuted, variable reluctance motor and life expectancy estimation for the french company SAUREA SAS.
- Awarded with high honors. Rank: 3/24.

M.S. Fundamental physics September 2017 – September 2018
Université Paris-Sud Orsay, France

- One year programm as evening lectures.
- Related courses: Plasma physics, atoms and molecule structure, atomic nucleus and particles, optical physics, laser physics.
- Awarded with high honors.

B.S. General Engineering September 2016 – September 2017
École Normale Supérieure Paris-Saclay Cachan, France

- Related courses: Mathematics, Computing, Mechanics, Energies, Numerical Electronics, Biologic electricity.
- Team Project: Building and designing an electronic spinet able to play any recorded song.
- Awarded with high honors. Rank: 16/60.

B.S General Engineering September 2014 - July 2016
Lycée Chaptal Paris, France

- Intensive 2-years course in preparation to sit the national competitive examinations for admission to the French Grandes Ecoles of physics and engineering.
- Related courses: Mathematics, Physics, Chemistry, Engineering, Computing.
- Individual Project: Building and designing the software, the hardware and the mechanical structure of a reduced SegWay System.