

LOVICH Louis-Marie

Paris, FRANCE

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EDUCATION

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| MSc Probability and Finance (ex DEA El Karoui) (Sorbonne University, Paris) <i>Numerical Probability – Stochastic Modelling of Derivatives in Traditional and Digital Finance – Stochastic Control – Financial Markets and Financial Theory.</i> | 2023 – 2024 |
| MSc MVA Additional Courses (Université Paris-Saclay) <i>Machine Learning for Time Series – Convex Optimization and Applications in Machine Learning.</i> | 2023 – 2024 |
| Engineer's Degree at École Polytechnique (X2019) (Palaiseau) <i>Statistics – Modeling Random Phenomena – Optimization and Control – Machine Learning – Algorithm Design and Analysis – Algorithms for Data Analysis – Object-oriented Programming.</i> | 2019 – 2023 |
| Engineer's Degree (<i>Data Science</i> MSc program) at ISAE-Supaero (Toulouse) <i>Statistical learning – Supervised and unsupervised learning algorithms – Deep learning – Reinforcement learning – Stochastic optimization and evolutionary algorithms – Big Data tools.</i> | 2022 – 2023 |
| MSc in Operations Research (Université Paul Sabatier, Toulouse) <i>Deterministic Global Optimization – Mathematical Optimization for Machine Learning – Advanced Combinatorial Optimization.</i> | 2022 – 2023 |
| Preparatory Class [Bachelor's Degree] (CPGE : MPSI-MP*) at Lycée Fabert (Metz) <i>An intensive program in Mathematics, Computer Science and Physics. Admitted to X-ENS.</i> | 2016 – 2019 |

WORK EXPERIENCE

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| Research Intern (Winamax, Paris) <i>I designed models to estimate the outcome probabilities of sport events based on machine learning algorithms and time series analysis (PARX, EWMA). I then developped a Python microservice using FastAPI and implemented two Streamlit applications for sports events odds models.</i> | Apr 2023 – September 2023 |
| Teaching Assistant (Lycée Pierre de Fermat, Toulouse) <i>I conducted weekly oral examinations in Mathematics for undergraduate students (CPGE).</i> | Sep 2022 – Mar 2023 |
| Data Scientist Intern (Berlin Brands Group, Berlin) <i>As part of the Pricing and Forecasting team, I analyzed the company's 4,000 products available for sale on various European marketplaces and developed sales forecasting and price elasticity estimation models implemented in Python. These models are updated daily on PowerBI dashboards to support decision-making for category managers.</i> | Jun 2021 – Sep 2021 |
| Officer (Paris Fire Brigade (BSPP), Paris) <i>I was fully trained in emergency first aid and served as the chief on a first aid vehicle, responsible for a two-firefighter crew.</i> | Oct 2019 – Apr 2020 |

PROJECTS

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| Space objects maneuver detection <i>1st place in a 3-day hackathon with a group of 4. We reconstructed the signals with a Gaussian Process based on a combination of two base kernels and employed a Temporal Convolutional Network (TCN) using Pytorch library to achieve a 90 % accuracy.</i> | March 2023 |
| Reinforcement learning for optimal control of air conditioning system <i>An industrial supplied a black-box FMU for MATLAB to simulate an air flow system's behavior. We developed a Python interface and applied DDPG and SAC deep reinforcement learning algorithms to control the valve with a current command.</i> | Oct 2022 – March 2023 |

LANGUAGES

French (Native) – **German** (Proficient [C2]) – **English** (Advanced [C1]) – **Luxembourgish** (Advanced)

INTEREST AND HOBBIES

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| Volunteering | I served as a young volunteer fireman in my hometown from 2012 to 2017. |
| Track and field | 1500m: 4'18" – 3000m : 9'24" – 10km: 34'47" – Marathon: 2h55. |
| Skydiving | Former president of skydiving activities at X – 365 jumps since 2014. |
| Music | I played the trumpet for 9 years in orchestras and in a musical. |