



Lucas POTIN

Data Scientist

Specialist in network analysis and graph mining. Expertise in machine learning and graph optimization.

Experience

Professional Experience

2021-2025 **PhD Thesis, Avignon Computer Science Laboratory, Avignon**

Topic: Detecting corruption in public procurement using complex networks.

- Creation of two open-source public procurement databases in France (**FOPPA / BeauAMP**).
- Development of a fraud prediction method on networks using **frequent subgraphs**.
- **Open Science Prize** for research data 2024 for the BeauAMP database.
- Technologies: *Python, SQL*.

March-September 2020 **Engineering Internship, Aubay, Boulogne Billancourt**

- Analysis of user behavior through connection logs.
- Implementation of a **customer journey prediction algorithm** and clustering of pages based on semantics.
- Development and optimization of Machine Learning and Deep Learning models (*SVM, LSTM, Q-Learning*).
- Technologies: *Python, Neo4J*.

June-September 2018 **Research Assistant, James Hutton Institute, Dundee (Scotland)**

- Implementation of a cellular modeling algorithm using GPU processing.
- Teamwork in a **multidisciplinary** and **multilingual** environment.
- Performance optimization: final code **2 to 50 times faster**.
- Technologies: *C++, Cuda*.

Education

2015–2020 **National Institute of Applied Sciences (INSA), Saint-Etienne-du-Rouvray**
Engineering degree in **Mathematical Engineering**

2019–2020 **University of Rouen, Saint-Etienne-du-Rouvray**
Master's degree in Data Science and Engineering. Double degree with INSA

2015 **Scientific Baccalaureate (S-specialty Mathematics), European German mention**

Projects and Teaching

2021-2025 **Final-year project supervision, Python Language**
Application of **multi-agent** reinforcement learning methods.

2019-2020 **Final-year project, Python Language**
Application of **reinforcement learning** methods on ATARI games
Q-learning, SARSA, Deep-Q-Learning, Double Deep-Q-Learning

Languages

French Native language
English Fluent (C1): TOEIC score of 970/990
German Intermediate (B1)

Skills

Mathematics Graph Theory, Statistics, Probability, Optimization (linear, combinatorial)
Python Numpy, Scipy, Pandas, Tensorflow, Scikit-Learn, Networkx
Other languages SQL, R, C, C++, CPLEX, CUDA
General Git, LaTeX, Office

Hobbies

Tennis (Rank 15/2) / Bridge (3rd club series ranking)

272 hameau la salle – 76680 – Saint Martin Osmonville

☎ (+33)651710181 • ✉ lpotin888@gmail.com • in lucas-potin • 🌐 lucaspotin98