Marc Jourdan

Mai 5, 1995

1 rue Etienne Dolet, Lille, France

+33 (0)6 48 91 36 13

https://marcjourdan.github.io

marc.jourdan@inria.fr

https://linkedin.com/in/marc-jourdan

https://twitter.com/MarcJourdan5

Research Interests

My main research interest is Multi-Armed Bandits, with a particular focus on identification problems. I also explore the theoretical understanding of these algorithms when only few samples are available.
My research interests also include reinforcement learning, online learning, Bayesian optimization, statistics and machine learning in general. I focus on developing theoretically well-founded and practically applicable algorithms.

Hard Skills

- Bandits, Reinforcement Learning
- Machine Learning, Data Science
- Julia, Python, LaTeX, R, Java, C++, Bash
- Linux, Windows

Soft Skills

- Communication (oral and written)
- Adaptability, curiosity, proactivity
- Problem solving, creativity
- Responsible, hardworking, trainable
- Organization, time management
- Empathy, friendliness, awareness

Languages

- French (nativ)
- English (fluent)
- German (B2)

Education

2021 – 2024 **PhD Student in Computer Science** — Université de Lille, Lille
"Adaptive algorithms for decision making with limited samples" under the supervision of Dr. Émilie Kaufmann and Dr. Rémy Degenne in the Inria Scool team (formerly SequeL) at CRIStAL (CNRS).

2018 – 2020 **Data Science MSc** — ETH Zürich, Zürich
Studied Statistics and Machine Learning, with distinction, 5.8/6.

2015 – 2019 ***Ingénieur* (MSc)** — École Polytechnique, Palaiseau
Studied Applied Mathematics and Computer Science, top 10%.

2013 – 2015 ***Classes Préparatoires*** — Lycée Louis-Le-Grand, Paris
An intensive preparatory course for the competitive entrance exams to top French engineering schools. Studied Mathematics and Physics.

Working Experience

2021, 5 months **Research Intern** — Scool, Inria Lille-Nord Europe and CRIStAL
Studied bandit identification with continuous answers under the supervision of Dr. Rémy Degenne.

2020, 6 months **Master's Thesis** — Learning & Adaptive Systems, ETHZ
Studied pure exploration for combinatorial semi-bandits in the group of Prof. Dr. Andreas Krause.

2019, 6 months **Part time Data Scientist** — AMAG Leasing, Zürich
Created a recommender system for customers and developed models to predict churn and customer recovery.

2018, 5 months **Research Intern** — AI @ Nation Scale, IBM Singapore Lab
Characterized entities in the Bitcoin blockchain and developed a probabilistic model of its evolution.

2017, 3 months **Research Intern** — STMicroelectronics, Crolles
Quantized convolutional neural network for electronic chip.

Selected Publications

2023 **An Anytime Algorithm for Good Arm Identification**
Jourdan, M., Reda, C.

2023 **An ε-Best-Arm Identification Algorithm for Fixed-Confidence and Beyond**
Jourdan, M., Degenne, R., Kaufmann, E.
Conference on Neural Information Processing Systems (NeurIPS)

2023 **On the Complexity of Differentially Private Best-Arm Identification with Fixed Confidence**
Aziz, A., Jourdan, M., Al Marjani, A., Debabrota, B.
Conference on Neural Information Processing Systems (NeurIPS)

2023 **Non-Asymptotic Analysis of a UCB-based Top Two Algorithm**
Jourdan, M., Degenne, R.
Conference on Neural Information Processing Systems (NeurIPS)

2023 **Dealing with Unknown Variances in Best-Arm Identification**
Jourdan, M., Degenne, R., Kaufmann, E.
Conference on Algorithmic Learning Theory (ALT)

2022 **Top Two Algorithms Revisited**
Jourdan, M., Degenne, R., Baudry, D., De Heide, R., Kaufmann, E.
Conference on Neural Information Processing Systems (NeurIPS)

2022 **Choosing Answers in ε-Best-Answer Identification for Linear Bandits**
Jourdan, M., Degenne, R.
International Conference on Machine Learning (ICML)

2021 **Efficient Pure Exploration for Combinatorial Bandits with Semi-Bandit Feedback**
Jourdan, M., Mutný, M., Kirschner, J., Krause, A.
Conference on Algorithmic Learning Theory (ALT)