KARIM TIT

French national, 29 years old, 📍 Campus Kirchberg, University of Luxembourg

Postdoctoral Researcher in Machine Learning

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WORK EXPERIENCE 💼

University of Luxembourg   *May 2024 - Ongoing*
Postdoctoral Researcher, supervised by Dr. Maxime Cordy
Working on formal methods and statistical model-checking methods for Deep Learning certification.

Thales Land and Air Systems (LAS)   *February 2021 - January 2024*
ML Research Engineer, supervised by Dr. Louis-Marie Traonouez
Worked on the reliability of Deep Neural Networks for cybersecurity applications.

KeyQuant   *May 2020 - September 2020*
Quantitative research intern, supervised by Dr. Charles Chevalier
Enhanced and implemented [in Python] trend-following trading strategies with machine learning models.

CREST, CNRS   *July 2019 - September 2019*
Research intern, supervised by Dr. Anna Simoni
Implemented [in R] and analyzed a new estimator for inverse problems in high dimensional econometrics.

Capital Fund Management & École Polytechnique   *March 2019 - July 2019*
Quantitative research intern, supervised by Dr. Michael Benzaquen & Dr. Iacoppo Mastromatteo
Developed a financial market microstructure model for the Chair Econophysics and Complex Systems

EDUCATION 🏛

INRIA & University of Rennes   *February 2021- April 2024*
Ph.D. in Computer Science, *supervised by Dr. Teddy Furon & Dr. Mathias Rousset*
Thesis subject : "Reliability of Deep Neural Networks with Rare Event Simulation Algorithms."

Paris-Saclay University   2019-2020
Masters in Mathematics of Randomness (M2), StatML track   *highest distinction, GPA 4.0*
Some relevant courses : Reinforcement Learning, Statistical Learning

ENSAE Paris, Polytechnic Institute Of Paris   2018-2020
Master of Engineering and Data Science (Diplôme d'ingénieur)   *highest distinction, GPA 4.0*
Some relevant courses : Deep Learning, Natural Language Processing, C++

Paris Sciences Et Lettres University   2018-2019
Research Masters in Pure and Applied Mathematics (M2)   *highest distinction , GPA 4.0*
Some relevant courses : Stochastic Calculus, Stochastic Control, Statistical Mechanics

Sorbonne University   2016-2018
M.Sc. in Mathematics 1st year (M1),   *highest distinction, GPA 4.0*
B.Sc. in Mathematics with minor in Physics (L3),   *highest distinction, GPA 4.0*

LANGUAGE & TECHNICAL SKILLS ⚒

French	Mother tongue
English	C1 level (TOEFL : 104/120)
Programming languages	Python 🐍 (main), R, C++ (secondary)
Python libraries	Numpy, Pandas, PyTorch, TensorFlow, Scikit-learn
Operating systems	🐧, ⊞
Software tools	git, 🐳, LaTeX

PUBLICATIONS 📜

On the Robustness of Tabular Foundation Models: Test-Time Attacks and In-Context Defenses
M. Djilani, T. Simonetto, K. Tit, F. Tambon, S. Ghamizi, M. Cordy, M. Papadakis - 4th IEEE Conference on Secure and Trustworthy Machine Learning (SatML), March 2026, Munich, Germany.

KCLNet: Physics-Informed Power Flow Prediction via Constraints Projections
P. Dogoulis, K. Tit, M. Cordy - European Conference in Machine Learning (ECML), Aug 2025, Porto, Portugal.

TS-SCAN: a Density-Based Clustering Method for Trajectory Analysis and Anomaly Detection.
L. Monnier, LM. Traonouez, K. Tit - 2024 International Radar Conference (RADAR), 2024, Rennes, France.

Fast Neural Networks Reliability Estimation with Attack-Driven Importance Sampling.
K.T., T. Furon - 40th Conference on Uncertainty in Artificial Intelligence (UAI), Jul 2024, Barcelona, Spain.

Three Bricks to Consolidate Watermarks for Large Language Models.
P. Fernandez, A. Chaffin, K.T., V. Chappelier, T. Furon - IEEE 15th International Workshop on Information Forensics and Security (WIFS), Dec 2023, Nuremberg, Germany.

Gradient-Informed Neural Network Statistical Robustness Estimation.
K.T., T. Furon, M. Rousset- 26th International Conference on Artificial Intelligence and Statistics (AISTATS), Apr 2023, Valencia, Spain.

Efficient Statistical Assessment of Neural Network Corruption Robustness.
K.T., T. Furon, M. Rousset- 35th Conference on Neural Information Processing Systems (NeurIPS), Dec 2021, Sydney (virtual), Australia.

TEACHING 🖥

University of Luxembourg	September 2024- December 2025

Classes on Robust Machine Learning for Data Science & Cyber-Security master's students (20h).
Classes on Software Engineering for the Computer Science Bachelor students (6h).

École Polytechnique	October 2019- January 2020

Tutorials for undergrad students covering advanced statistics and measure theory (45h).

ACADEMIC AWARDS 🏅

— Top Reviewer Award (top 10%) at Neurips 2025.
— Best Student Paper Award at WIFS 2023, jointly with co-authors P. Fernandez and A. Chaffin.
— Scholarship for academic excellence in Mathematics, 'Sophie Germain'   2019-2020
  Masters Scholarship awarded by the Fondation Mathématiques Jacques Hadamard (FMJH)
— Scholarship for academic excellence in Mathematics, 'PGSM'   2018-2019
  Masters Scholarship awarded by the Paris Graduate School of Mathematics