Postdoc position 2025
Graph Neural Networks for Dynamic Graphs

Location
The postdoc will take place in one of the following 2 laboratories:
– LIFAT, Tours, France
– GREYC, UMR CNRS – ENSICAEN – UNICAEN, Caen, France

Duration: 6 to 9 months between April and December 2025

Salary: from 2200€ / month depending on duration

Candidate
– Ph.D. in Computer Science, Data Science, Electrical Engineering.
– Required experience: GNN and dynamic graphs, computer vision and pattern recognition.
– Python, Pytorch or Tensorflow programming.

Advisors
– Pr. Nicolas Ragot, Polytech Tours, LIFAT (nicolas.ragot@univ-tours.fr)
– Dr. Sébastien Bougleux, Univ. Caen Normandie, GREYC (sebastien.bougleux@unicaen.fr)
– Pr. Luc Brun, ENSICAEN, GREYC (luc.brun@ensicaen.fr)

Context and objectives
In the context of the French ANR CoDeGNN project (https://www.normastic.fr/projet-anr-codegnn/), we offer a postdoc position on Graph Neural Networks for dynamic graphs. The subject of the postdoc is relatively open, depending on the experience of the candidate and the interests of the research team in the field. We currently expect to work on the following topics:
– Pooling operations adapted to dynamic graphs, as a continuation of the work realized for static graphs during the CoDeGNN project [1]
– Dynamic graph representations and autoencoders in the context of
   o anomaly detection on time series signals, based for example on benchmark datasets like MSL, SMAP, SMD… [2, 3, 4]
   o analysis and synthesis of 2-team sport games, with a 1st focus on the generation of game sub-sequences from the previous sub-sequences.
– Dynamic graph representations for spatiotemporal time series prediction on environmental data (air pollutants, groundwater level).

More details are given on request.

A candidate with its own subject on GNNs for dynamic graphs can also apply.

Application
Send an email to the advisors with a CV and a motivation letter explaining your experience in the field.

[1] Graph Neural Networks with maximal independent set-based pooling: Mitigating over-smoothing and over-squashing. S. Stanovic, B. Gaüzère, L. Brun. PRL 187, 2025.
[2] https://paperswithcode.com/dataset/smap
[2] https://www.kaggle.com/datasets/patrickfleith/nasa-anomaly-detection-dataset-smap-msl
[3] https://github.com/elisejiuqizhang/TS-AD-Datasets