FOSSE LOÏC

PhD Candidate at Orange Innovation and Aix-Marseille university

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in loïc-fosse-7abb711bb ○ lolofo

STRENGTHS

Team Spirit Hard Worker Sporty
Motivated Determined Curious

LEARNING

Programmation:

Python Linux Docker R
JuLia C C++ LaTeX MatLab

Deep Learning:

PyTorch / PyTorch Lightning
PyTorch Geometric
Plotly / Dash
LabelStudio
HuggingFace

LANGUAGES

French: Native

English: TOEIC : 940 (C1/B2)

HOBBIES

Surf KiteSurf WindSurf
Ski Touring Snowboard
Golf : 0.4 index / Hossegor team

EXPERIENCES

PhD Candidate | Orange Innovation / Aix-Marseille University

📅 Oct 2023 – 📍 Lannion, France

- Study of low rank adaptations for model combination
- Study of Mamba models for long context modelisation

Question answering from conversations | Orange Innovation

📅 Feb 2023 – Aug 2023 📍 Lannion, France

- State of the art study.
- Study of the dialogical structure and linkage with graph theory.
- Use of generative language models such as Encoders / Decoders (T5, BART).
- Modification of the attention mechanism in T5 type models to integrate the dialogical structure.

Study of the plausibility of attention mechanism in BERT architecture in NLI task | IRISA

📅 June 2022 – august 2022 📍 Rennes, France

- Study of the state of the art
- Highlighting relations between attention and the geometry of hidden embeddings in BERT transformers for the e-SNLI task
- Development of a method to increase the plausibility of the attention mechanism in the BERT transformer for the e-SNLI task

Statistical analysis on the BERT/FlauBERT Transformers (NLP) | IRISA

📅 Sept 2021 – July 2022 📍 Rennes, France

- Study of hidden states in transformer-type architectures, pre-trained on French corpora and specialized on binary classification (*FLUE/CLS* task)
- Writing and submitting a research paper to *TALN 2022* (Avignon, France) conference
- Presentation of the paper at the *TALN 2022* conference

Mathematics Tutor for 2nd year students | INSA

📅 Sep 2019 – June 2020 📍 Rennes, France

- Corrections of mathematics exercises (Algebra, Analysis, Differential Geometry, Probability)
- Help with exam preparation

EDUCATION

Engineer in applied mathematics | INSA

📅 sept 2020 – sept 2023 📍 Rennes, France

- Probability: General probability theory, Markov Chains, Hidden Markov Chains , Continuous time Markov Chains , Stochastic differential equations
- Statistics: linear regression, generalized linear model, logistic regression, time series, data analysis (PCA, MCA, FCA)
- Optimization: Graph theory , Branch and bound algorithm

Exchange Study (Erasmus) | Abo Akademi

📅 Jan-2022 – May-2022 📍 Turku, Finland

- Deep Learning: optimization algorithms (Adam, AdaGrad, Adaptive learning)
- Machine Learning: Neural Networks (CNN , RNN , FC)
- Text algorithms: Pattern matching, suffix Trees