Minh Tri LÊ

Industrial Ph.D. Student in Deep Learning

leminhtr.github.io

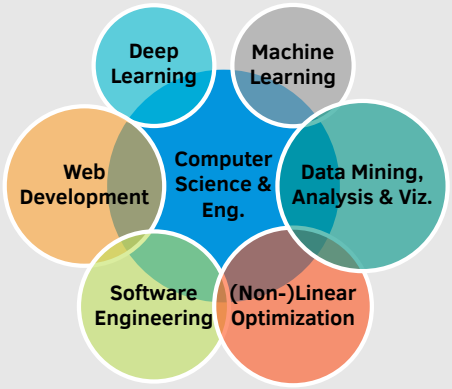
LinkedIn /in/MinhTri-Le

GitHub /leminhtr

+ (33) 6 43 84 87 17

trileminh16@gmail.com

Skills Summary



Computer languages

Python, C/C++, JS/TS

TF2/PyTorch, Scikit-Learn, Numpy

R, SQL3, Matlab, Angular 5, LaTeX

Node.js

Software and Tools

Git, RDBMS, REST API

ElasticSearch, Kibana, Gephi

Wireshark, After Effects/Premiere Pro

MongoDB, Neo4j

Languages

French, English, Italian, Spanish, Vietnamese, Polish, Chinese

Projects

Feb - Jun 2018 — **Lab project: Predicting English level by analyzing writing styles**

Predicted the fluency of a learner regarding the *CEFR* (A1, A2,...) from their written production (20 - 300 words)

- Experimented various machine learning algorithms (Regression, KNN, SVM, Neural networks) and methods (Hyperparameter optimization, stacked model) and libs (NumPy, Scikit-learn, Keras)
- Predicted 83% accuracy at best from 56 quantitative features (given) extracted from raw text (136.000+68.000 training/testing samples)

Feb - Jun 2017 — **Lab project: Data analysis of educational content for *Faq2sciences.fr***

Conceived a learning dashboard for professors and students from educational data to help identifying students difficulties in collaboration with *Kelis* IT team. *Link to project evaluation by the jury:* ***here*** *(French)*

- Analyzed data (test results, answering time) using ElasticSearch to understand student progress and behavior (≈ 75.000 quiz samples)
- Designed a learning dashboard from the analysis with Kibana and then Plotly, intended for an integration to *Faq2sciences website*

Education

2020 - 2023 — **Ph.D. (CIFRE) - Artificial Intelligence** — ***Université Grenoble Alpes***

Deep learning for micro-embedded systems. Grenoble, France

Industrial Ph.D, supervised by *Etienne de Foras*, Sr. software engineer *@TDK InvenSense* & *Julyan Arbel*, researcher *@INRIA Grenoble*

Keywords: Neural Networks, TinyML, Model Compression, Edge Inference, Meta-Learning, Micro-embedded Systems, AutoML, NAS

2013 - 2019 — **M.Sc. - Computer Science & Eng.** — ***Université de Technologie de Compiègne***

Specialization: ***Decision and Data Mining*** Compiègne, France

•*Data Analysis & Data Mining* •Data Warehouse & Decision Support •*Lab Projects* •Linear/Nonlinear Optimization

2018 - 2019 — **M.Sc. - Computer Science** — ***Scuola Politecnica di Genova***

Master: ***Laurea Magistrale in Ingegneria Informatica*** Genoa, Italy

•Double European Master degree (*EMECIS*): *European Master in Engineering for Complex and Interacting Systems (Erasmus exchange)*

2018 - 2019 — **M.Sc. - Complex System Engineering** — ***UT - Compiègne***

Specialization: ***Machine Learning, Optimization of Complex Systems***

- Double European Master degree (*EMECIS*), in parallel of my final-year at the UTC. Part of the *LABoratory of EXcellence Labex MS2T program*

Work Experience

Jun 2020 - Current — **Industrial Ph.D. Student in Artificial Intelligence** — ***TDK - InvenSense*** & **INRIA**

Deep Learning applied to signal processing for micro-embedded systems. CIFRE Ph.D. between *TDK InvenSense* & *INRIA* Grenoble, France

Keywords: Neural Networks, TinyML, Model Compression, autoML, ...

Feb - Aug 2019 — **Machine Learning Research Internship** — ***TDK - InvenSense***

Research project: Deep Learning applied to CPU constrained targets (MEMS sensors). First part of a broader PhD thesis. Grenoble, France

Link to my supervisor's recommendation letter: ***here***

Keywords: Embedded neural networks, autoML, quantization

- Objectives include: Outperforming current classic algorithms in accuracy, power consumption & efficiency of the design cycle
- First application to fingerprints: classification of dry vs wet finger and detection of finger push or pull events

Sep 2017 - Feb 2018 — **Web Development Internship** — ***Metadot Corporation***

Development of a *Cloud connected Keyboard Application* Austin, USA

Link to my internship evaluation by my supervisor: ***here***

- Improved real-time communication latency with socket connection to receive signals from the cloud to the application in ≈30ms
- Implemented and suggested new features: Dashboards for socket connections and task scheduler (w/ Angular 5)

Miscellaneous

Association — *Data Venture*: Active member for related data science projects

Erasmus Student Network: Organized events for international students