



Minh Tri Lê, Ph.D.

Seeking an R&D role in AI
Available in Grenoble or remotely


 [leminhtr.github.io](https://github.com/leminhtr)

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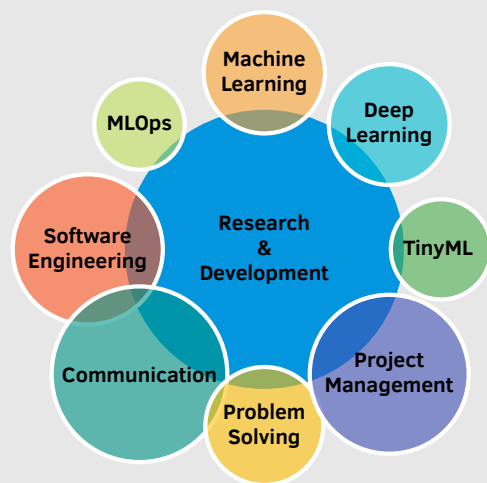
 Minh Tri Lê

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Skills Summary



Computer Languages

Python, TF/PyTorch, Scikit-learn, Numpy

C/C++, SQL3, Matlab, JS/TS, HTML/CSS

Bash

Software and Tools

Git, DBMS, REST API

Linux, Lightroom, Premiere Pro/AE




Languages

French English Italian



Spanish Vietnamese Polish

Mandarin

Work Experience

- Jun 2020 - **Industrial Ph.D. in Deep Learning** TDK - InvenSense & Inria
 Jun 2023 *Deep learning for sensor-based applications on ultra-low-power micro-controllers. CIFRE Ph.D.* Grenoble 
- Demonstrated ability to collaborate and innovate within international R&D teams through *patents*, and *papers* in international conferences
 - Delivered two prototypes with live demos for speech and gesture recognition running a tiny neural network
 - Researched a novel algorithm for flexible parameter precisions down to 1-bit, reducing model size by 50% with acceptable loss
 - Created and developed an MLOps industry-standard software to train and deploy neural networks on the most constrained hardware (< 8KB)
- Keywords:** *Neural Networks, TinyML, Model Compression, Quantization, Edge Inference, Speech & Motion recognition, Sensors, R&D, Prototyping*
- Feb - Aug 2019 **Research Engineer Intern in Deep Learning** TDK - InvenSense
 Deep Learning applied to micro-controllers Grenoble 
Reference: [here](#)
- Outperformed current classic algorithms in accuracy, power consumption & efficiency of the design cycle for fingerprint applications
- Sep 2017 - **Web Developer Intern** Metadot Corporation
 Feb 2018 Development of a *Cloud connected Keyboard Application* Austin, TX 
Reference: [here](#)
- Developed and deployed new features to production: dashboard panel real-time socket connection, task scheduler...
 - Project management and code development with Scrum & Kanban

Education

- 2020 - 2023 **Ph.D. - Deep Learning** Université Grenoble Alpes
 Deep learning for sensor-based applications. Grenoble 
 Industrial Ph.D, *CIFRE contract* with @TDK InvenSense and Statify team at Inria | Advisors: Etienne de Foras & Julyan Arbel
- 2013 - 2019 **M.Sc. - Computer Science & Eng.** Université de Technologie de Compiègne
 Focus: **Artificial Intelligence** Compiègne 
- 2018 - 2019 **M.Sc. - Computer Science** Scuola Politecnica di Genova
 Master: **Laurea Magistrale in Ingegneria Informatica** Genoa 
 • 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** Compiègne 
 • Double European Master degree (EMECIS), in parallel with my final year at the UTC. *Labex MS2T program*. Da Vinci grant.

Patents

- 2022 Lê, M. T. & de Foras, E. One bit quantization for embedded systems. *U.S. patent, filed.*
- 2022 Ponçot, R., Lê, M. T., de Foras, E., Ataya, A., & Hartwell, P. G. Method for improved keyword spotting. *U.S. patent application, pending.*

Selected publications

- 2023 Lê, M. T. et al. (2023). Efficient Neural Networks for Tiny Machine Learning: A Comprehensive Review. *Submitted to TMLR journal.*
- 2023 Lê, M. T. et al. (2023). Regularization for Hybrid N-Bit Weight Quantization of Neural Networks on Ultra-Low Power Microcontrollers. In ICANN 2023.
- 2023 Lê, M. T. et al. (2023). TinyMLOps for real-time ultra-low power MCUs applied to frame-based event classification. In EuroMLSys 2023.