Ke WANG

Personal Data

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ABOUT ME

I am a PhD student at EPFL working under the supervision of Prof. Pascal Frossard. My research interests cover improving machine learning methods in terms of efficiency, reliability and generalization. Currently I am mainly interested in post-training model editing and merging techniques.

EDUCATION

Feb. 2023 - PhD. in Machine Learning (EDIC fellowship program)

École Polytechnique Fédérale de Lausanne, Switzerland

M.S. in Electrical Engineering (with Specialization in Data Science and Systems)

École Polytechnique Fédérale de Lausanne, Switzerland

GPA: 5.60 / 6.0

Sep. 2016 - B.S. in Electronic Information Science and Technology

University of Electronic Science and Technology of China, China

GPA: 3.99 / 4.0; Ranks 1st / 188

Professional Experience

Feb. 2023 -	Doctoral Assistant at EPFL,	Lausanne, Switzerland
Present	Studied methods for training neural networks with presence of label noise in	the training set.
	Researching on steering the behavior of neural networks with model merging	and editing.
Mar. 2022 - Sep. 2022	Machine Learning Intern at Oracle Labs, Automated Machine Learning and Explainability (AutoMLx) tea Applied machine learning techniques to develop financial flow forecasting sys	
July 2019 -	Research Intern at Chinese Academy of Sciences,	Beijing, China
Sep. 2019	HIGH ENERGY INSTITUTE	
	Applied deep learning methods to enhance data analysis in particle physics ϵ	experiments.

Awards and Honors

2023	EPFL EDIC PhD Fellowship, by EPFL
2020	Excellent Graduate Award, by UESTC
2020	Excellent Alumni Award, by School of Physical Electronics, UESTC
2019	Meritorious Winner in MCM (International Mathematical Contest in Modelling)
2018-2019	National Scholarship of China (highest-level scholarship across China for academic achievements.)
2018	Excellent Award for Student Projects
2016-2020	Undergraduate Academic Excellence Scholarship

Publications*

- [1] K. Wang*, N. Dimitriadis*, A. Favero, G. Ortiz-Jimenez, F. Fleuret, and P. Frossard. LiNeS: Post-training Layer Scaling Prevents Forgetting and Enhances Model Merging. In: arXiv. paper link.
- [2] K. Wang*, N. Dimitriadis*, G. Ortiz-Jimenez, F. Fleuret, and P. Frossard. Localizing Task Information for Improved Model Merging and Compression. In: International Conference on Machine Learning (ICML). paper link. 2024.

^{*}Full list of publications at my Google Scholar Page

- [3] K. Wang, G. Ortiz-Jimenez, R. Jenatton, M. Collier, E. Kokiopoulou, and P. Frossard. Pi-DUAL: Using Privileged Information to Distinguish Clean from Noisy Labels. In: International Conference on Machine Learning (ICML). paper link. 2024.
- [4] K. Wang, H. Machiraju, O.-H. Choung, M. Herzog, and P. Frossard. CLAD: A Contrastive Learning based Approach for Background Debiasing. In: *British Machine Vision Conference (BMVC)*. paper link. 2022.
- [5] K. Wang*, G. Hu*, Y. Zhang, M. Dan, L. Li, and Y. Zhang. Polarization-Driven Edge-State Transport in Transition-Metal Dichalcogenides. In: *Physical Review Applied*. paper link. 2020.

EXTRACURRICULAR ACTIVITIES

2024	Attended Cambridge Ellis Unit Summer School on Probabilistic Machine Learning
2018	Attended Winter Program in National University of Singapore on Software Development
2017	Attended Summer Program visiting University of Oxford and University of Cambridge
2016-2020	Member of Students Union of UESTC
2016-2020	Various voluntary activities; Awarded 'Outstanding Volunteer in UESTC'
2016-2018	Class Monitor
2016-2018	Member of football team of School of Physical Electronics; Won Second Prize in Football Cup of UESTC

Teaching Experience

• Machine Learning

- Information, Computation and Communication
- Object-Oriented Programming

SOFTWARE SKILLS

- Python, PyTorch, TensorFlow, Keras, Pandas, etc.
- Conda, Git, etc.
- LaTex

LANGUAGES

Chinese: Native

ENGLISH: Fluent, TOEFL iBT: 112 / 120 FRENCH: Elementary (EPFL course)

Personal Interests

Football, Skiing, Traveling, History, Cinema