# 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**

PRESENT	École Polytechnique Fédérale de Lausanne, Switzerland
SEP. 2020 - FEB. 2023	M.S. in Electrical Engineering (with Specialization in Data Science and Systems) <b>École Polytechnique Fédérale de Lausanne</b> , Switzerland GPA: 5.60 / 6.0
SEP. 2016 - Jun. 2020	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 i	n the training set.
	Researching on steering the behavior of neural networks with model mergin	_
Mar. 2022 - Sep. 2022	Machine Learning Intern at Oracle Labs, Automated Machine Learning and Explainability (AutoMLx) to Applied machine learning techniques to develop financial flow forecasting sy	
JULY 2019 - SEP. 2019	Research Intern at CHINESE ACADEMY OF SCIENCES, HIGH ENERGY INSTITUTE Applied deep learning methods to enhance data analysis in particle physics	Beijing, China 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: In submission. 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.

<sup>\*</sup>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