Ke WANG

Personal Data

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About Me

I am currently a second-year PhD student at EPFL working under the supervision of Prof. Pascal Frossard. My research interests cover improving machine learning methods in terms of aspects such as reliability, robustness and data efficiency.

Education

Feb. 2023 - Present	PhD. in Machine Learning (EDIC fellowship program) **École Polytechnique Fédérale de Lausanne**, Switzerland
Sep. 2020 - Feb. 2023	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 - 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**; Top **0.53%**

Professional Experience

Feb. 2023 - Present	**Doctoral Assistant** at EPFL, Lausanne, Switzerland Studied utilizing privileged information to explain away label noise when training neural networks. Researching on the behavior of neural networks in model merging and editing.
Mar. 2022 - Sep. 2022	**Machine Learning Intern** at Oracle Labs, Zürich, Switzerland Automated Machine Learning and Explainability (AutoMLx) team Conducted research on using machine learning techniques to develop financial flow forecasting system.
July 2019 - Sep. 2019	**Research Intern** at Chinese Academy of Sciences, Beijing, China High Energy Institute Researched on applying deep learning techniques to aid data processing in particle physics 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), 2019
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[*], G. Ortiz-Jimenez, F. Fleuret, and P. Frossard. **Localizing Task Information for Improved Model Merging and Compression**. In: *International Conference on Machine Learning (ICML)*. 2024.

[2] **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)*. 2024.

[3] **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)*. 2022.

[4] **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*. 2020.

EXTRACURRICULAR ACTIVITIES

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

LANGUAGES:	Python, MATLAB, C, SQL
FRAMEWORKS:	PyTorch, TensorFlow, Keras, Pandas, Numpy, Scikit-learn

LANGUAGES

CHINESE:	Native
ENGLISH:	C1, TOEFL iBT: 112 / 120
FRENCH:	Elementary (EPFL course)

PERSONAL INTERESTS

Football, Skiing, Traveling, History, Cinema