JUNWEI DENG

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EDUCATION

University of Illinois Urbana-Champaign, United States — GPA: 3.94/4.00
Ph.D. in Information Sciences — *2023.9 - now*
- **Advisor:** Prof. Jiaqi Ma

University of Michigan, United States — GPA: 3.89/4.00
M.S. in Information — *2019.9 - 2021.4*

Shanghai Jiao Tong University, P.R. China — GPA: 3.71/4.00
B.S.E. in Electrical and Computer Engineering — *2016.9 - 2020.8*

RESEARCH INTERESTS

Data-Centric AI (e.g., data attribution); Trustworthy ML (e.g., robustness, fairness); Developing technical solutions for operationalizing regulatory principles (e.g., copyright issue for generative AI).

SELECTED PAPERS (* stands for equal contribution, more on Google Scholar)

- `dattri`: A Library for Efficient Data Attribution.
  NeurIPS 2024 (Datasets & Benchmark Track, Spotlight).
  J. Deng, T. Li*, S. Zhang, S. Liu, Y. Pan, H. Huang, X. Wang, P. Hu, X. Zhang, J. Ma.*
- Efficient Ensembles Improve Training Data Attribution.
  In Submission 2024.
  J. Deng, T. Li*, S. Zhang, J. Ma.*
- Computational Copyright: Towards A Royalty Model for Music Generative AI.
  In Submission 2024.
  J. Deng, S. Zhang, J. Ma.
- Adversarial Attack on Graph Neural Networks as An Influence Maximization Problem.
  WSDM 2022.
  J. Ma, J. Deng*, Q. Mei.*
- Subgroup Generalization and Fairness of Graph Neural Networks.
  NeurIPS 2021 (Spotlight, top 3%).
  J. Ma, J. Deng*, Q. Mei.*

WORK EXPERIENCE

Intel, P.R. China
AI Frameworks Engineer — *2021.5-2023.7*
- Lead, design and partially implement `IPEX-LLM`, `bigdl-chronos`, and `bigdl-nano` which collected more than 9K stars.
- More than 20000 lines open-source project contribution, over 300 pull requests' code review; More than 50 API design; More than 10 promotion/tech talks; Lead and coordinate around 10 full-time developers and interns on the project.

LAED PROJECTS

- *`dattri`*: is a PyTorch library for developing, benchmarking, and deploying efficient data attribution algorithms.
- *`IPEX-LLM`*: is a PyTorch library for running LLM on Intel CPU and GPU (e.g., local PC with iGPU, discrete GPU such as Arc, Flex and Max) with very low latency.

- *bigdl-chronos*: is an application framework for building a fast, accurate and scalable time series analysis application.
- *bigdl-nano*: is a Python package to transparently accelerate PyTorch and TensorFlow applications on Intel XPU.

SERVICE

- **Conference Reviewer**: NeurIPS 2024, ICLR 2025, AISTATS 2025
- **Workshop Student Organizer**: Regulatable ML @ NeurIPS 2023/2024

AWARDS & SCHOLARSHIP

- **Explorer Scholarship (2020)**, for outstanding students who went aboard for their graduate study provided by Shanghai Jiao Tong University.
- **Shanghai Outstanding College Graduate (2020)**, for outstanding students graduated in Shanghai.
- **National Scholarship (2018)**, the highest award provided by Ministry of Education in P.R. China.

SKILL

- **Language**: Python, C++, Git, Markdown, Shell, LaTeX
- **Framework**: Pytorch, Tensorflow, CUDA, Spark
- **English**: TOEFL 107/120 (Speaking: 25)