Qi Le

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Efficient Machine Learning, Distributed Machine Learning
To develop cutting-edge AI products and services

Education

- **University of Minnesota, Twin Cities** | *Ph.D. Computer Science* — Sep 2022 – Present
- **University of Minnesota, Twin Cities** | *M.S. Data Science* — Aug 2020 – May 2022
- **Rensselaer Polytechnic Institute** | *B.S. Chemical Engineering, Minor in CS* — Aug 2016 – May 2020

Experience

- **Research Assistant: Machine Learning**
  University of Minnesota, Twin Cities — May 2021 – Present
  - Introduced Probe Pruning , a novel framework for online, dynamic, structured pruning of Large Language Models applied in a batch-wise manner.
  - Introduced MAP, a novel, first-principle approach which navigates the alignment across multiple human values in a structured and reliable way.
  - Introduced Collaborative Adaptation with Gradient Learning, a parameter-free, model-agnostic fine-tuning approach that decouples the computation of the gradient of hidden representations and parameters.
  - Advised by Prof. Ali Anwar, Prof. Jie Ding, and Dr. Enmao Diao
- **Research Assistant: Federated Learning**
  University of Minnesota, Twin Cities — May 2021 – Present
  - Developed the DynamicFL, which bridges the gap between FedSGD and FedAvg, providing a flexible framework leveraging communication heterogeneity to address statistical heterogeneity in Federated Learning.
  - Conducted research on personalized Federated Learning and Recommender Systems, developing the PFR framework for personalized recommendations.
  - Advised by Prof. Ali Anwar, Prof. Jie Ding, and Dr. Enmao Diao
- **Research Assistant**
  Chinese Academy of Sciences — Jul 2019 – Aug 2019
  - Developed and optimized NLP algorithms, e.g. semantic understanding, language generation, and dialogue management, while providing regular progress reports to the supervisor.
  - Advised by Prof. Xiaoqiu Le

Publications

- **Q. Le**, E. Diao, Z. Wang, X. Wang, J. Ding, L. Yang, A. Anwar, **Probe Pruning: Accelerating LLMs through Dynamic Pruning via Model-Probing**, *ICLR 2025*
- X. Wang, **Q. Le**, A. Ahmed, E. Diao, Y. Zhou, N. Baracaldo, J. Ding, A. Anwar, **MAP: Multi-Human-Value Alignment Palette**, *ICLR 2025* Oral Presentation(1.8%)
- X. Wang, E. Diao, **Q. Le**, J. Ding, A. Anwar, **AID: Adaptive Integration of Detectors for Safe AI with Language Models**, *NAACL 2025*
- A.F. Khan, X. Wang, **Q. Le**, A.A. Khan, H. Ali, J. Ding, A. Butt, A. Anwar, **PI-FL: Personalized and Incentivized Federated Learning**, *IPDPS 2025*
- **Q. Le**, E. Diao, X. Wang, V. Tarokh, J. Ding, A. Anwar, **DynamicFL: Dynamic Federated Learning with Communication Resource Allocation**, *IEEE BigData 2024* Best Student Paper Award
- X. Wang, **Q. Le**, A.F. Khan, J. Ding, A. Anwar, **Incentivized Collaborative Learning: Concepts, Theory, and Applicationss**, *IEEE BigData 2024*
- E. Diao, **Q. Le**, S. Wu, X. Wang, A. Anwar, J. Ding, V. Tarokh, **ColA: Collaborative Adaptation with Gradient Learning**, *arXiv preprint arXiv:2404.13844, 2024*
- **Q. Le**, E. Diao, X. Wang, A. Anwar, V. Tarokh, J. Ding, **Personalized Federated Recommender Systems with Private and Partially Federated AutoEncoders**, *Asilomar 2022*

Awards

- **Machine Learning System Fellowship** | Amazon — 2025-2026