Jin Huang (Steven)

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Ann Arbor, MI

EDUCATION

University of Michigan, Ann Arbor Aug 2022 - Jun 2024
Bachelor of Science in Computer Science Ann Arbor
GPA: 3.94/4.0
Courseworks: Data Structures and Algorithms, Intro to Computer Organization, Intro to Operating System, Information Theory, Machine Learning, Continuous Optimization Methods, Intro to Autonomous Robotics

Shanghai Jiao Tong University Sep 2020 - Jun 2024
Bachelor of Science in Electronic and Computer Engineering (Dual Degree Program with University of Michigan) Shanghai
GPA: 3.78/4.0 (top 10%)
Courseworks: Intro to Artificial Intelligence, Linear Algebra, Probabilistic Methods in Engineering

RESEARCH EXPERIENCE

Foreseer research group, School of Information, University of Michigan May 2022 - Present
Research Intern Ann Arbor

- Standardized the approach to benchmarking of graph neural networks, enabling a unified way to train multiple datasets on various models with 50+ embedded datasets.
- Built a user-friendly platform to minimize the effort of contributing and maintaining a dataset, increasing the usability of the contributed dataset, as well as encouraging better credits to different contributors of the dataset.
- Conducted detailed benchmarking and hyperparameter tuning on 20+ datasets with 10+ models, contributing for further investigation into the quality of homogeneous and heterogeneous datasets.
- Related paper: "Graph Learning Indexer: A Contributor-Friendly Platform for Better Curation of Graph Learning Benchmarks" is accepted as **oral** presentation in Learning on Graphs Conference (LoG2022).

John Hopcroft Center for Computer Science, Shanghai Jiao Tong University Feb 2022 - Present
Research Intern Shanghai

- Developed two game theory concepts: Shapley value and Harsanyi dividend into the field of Artificial Intelligence, inventing a new way of computing Shapley value and Harsanyi dividend without backpropagation.
- Designed the implemented a new type of neural network: Harsanyi network. Analyzed the computation for Harsanyi dividend as well as carrying out experiments on dataset Mnist and Cifar-10. The accuracy of Harsanyi network is 90%+.
- Visualized the output layer and hidden dimension using matplotlib, providing more insights on structure of neural networks and how Harsanyi network can compute Shapley value within one round of forward propagation.

WORK EXPERIENCE

Intel Asia-Pacific Research & Development Ltd Dec 2021 - Mar 2022
Deep Learning Software Intern Shanghai

- Participated in the building of BigDL, a large-scale, end-to-end AI application for processing distributed big data, which seamlessly scales data analytics and AI applications from laptop to cloud.
- Maintained an open source project focusing on scalable time series analysis, which has 4k+ stars on github. The model is used in detecting fraud in transactions.
- Developed a project of prediction on cash flow based on Generative Adversarial Network for clients' demand.
- Investigated a tool that automatically accelerates TensorFlow and PyTorch pipelines by applying modern CPU optimizations.

SKILLS, HONORS & OTHERS

- **Computer languages:** Python, C++, C, Matlab, Latex, Html, Bash, Verilog, R
- **Tools:** Git, Linux, PyTorch, TensorFlow, Scikit-Learn, Jupyter notebook, Docker, Panda
- **Honors:** First Prize in China National Olympiad in Informatics in Provinces (NOIP 2018)

PUBLICATION

Ma, Jiaqi, Xingjian Zhang, Hezheng Fan, **Jin Huang**, Tianyue Li, Ting Wei Li, Yiwen Tu, Chenshu Zhu, and Qiaozhu Mei. "Graph Learning Indexer: A Contributor-Friendly and Metadata-Rich Platform for Graph Learning Benchmarks." *arXiv preprint arXiv:2212.04537* (2022).