Zhanpeng Zhou

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EDUCATION

Shanghai Jiao Tong University   Shanghai, China
B.S. Electrical And Computer Engineering , Minor in Data Science   *Sep 2018 – Aug 2022 (Expected)*
- Cumulative GPA: 3.75/4.00, Ranking: 9/158
- Course Works: Probability Methods in Eng. (A+), Methods of Applied Math (A+), Bayesian Analysis (A)

WORKING PAPERS

Game-theoretic Understanding of Adversarially Learned Features
Arxiv preprint
- This paper aims to understand adversarial attacks and defense from a new perspecitve, i.e. the signal-processing behaviors of DNNs.

Learning Baseline Value for Shapley Value
Arxiv preprint
- This paper aims to formulate the problem of estimating the optimal baseline values for the Shapley value in game theory.

RESEARCH EXPERIENCE

John Hopcroft Center, Shanghai Jiao Tong University   Shanghai, China
Research Assistant, Advisor: Dr. Quanshi Zhang   *Sep 2020 – Present*
- Develop game-theoretic framework to understand adversarial attacks and defense of , i.e. the signal-processing behaviors of DNNs.
- Develop a feature-removal framework for removal-based black-box explanations that satisfies six properties.

MILA (founded by Yoshua Bengio), HEC Montréal   Montreal, Canada
Research Intern, Advisor: Dr. Jian Tang   *Mar 2021 – Jun 2021*
- Using techniques multi-task learning, meta-learning, develop algorithm making data representation learned by GCN have more powerful generalization ability
- Develop algorithm for jointly embedding of text corpus and knowledge graph.

WangLab, Shanghai Jiao Tong University   Shanghai, China
Research Assistant, Advisor: Dr. Xudong Wang   *Aug 2020 – Sep 2020*
- Build a Federated Learning prototype system for IoT-based AI.
- Design algorithm to solve service migration problem in multi-access edge computing from a new perspective.

Acemap, Shanghai Jiao Tong University   Shanghai, China
Research Assistant, Advisor: Dr. Xinbing Wang   *May 2020 – Jun 2020*
- Solve the problem of deep knowledge discovery and extraction under the huge and disordered mass graph data.

OMNILab, Shanghai Jiao Tong University   Shanghai, China
Research Assistant, Advisor: Dr. Yaohui Jin   *May 2019 – Aug 2020*
- Construct an extensible enterprise knowledge graph based on enterprise equity relationship.
- Propose an efficient algorithm to analyze the equity relationship based on enterprise KG.

WORK EXPERIENCE

Xinrunfulian Digital Technology Co., Ltd.   Shenzhen, China
Product Manager, Software Engineer   *Sep 2020 – Mar 2021*
- Assist the Citic Dicastal plant to complete the transformation of Industry 4.0.
- Mainly participate in the design of technical solutions for quality adjustment of core process of production based on Artificial Intelligence.

Selected Awards and Honors

2020 Nov. John Wu & Jane Sun Excellence Scholarship, Shanghai Jiao Tong University
2019 Dec. First prize of Midea Innovation Competition, Midea Inc.
2019 Aug. Best Technology Award in Summer Design Expo, Shanghai Jiao Tong University
2019 Sep. Third Prize of English Writing Contest, Shanghai Jiao Tong University
2019 May. First Prize of Freshman Robotics Competition, Shanghai Jiao Tong University

Selected Projects

Named Entity Disambiguation in Enterprise KG | *DGL, Networkx* | Source   Sep 2020 – Dec 2020
- Apply and evaluate different node embedding methods (including GCN, node2vec) to deal with named entity disambiguation problem in Enterprise KG.

Federated Learning Standalone Simulation | *Pytorch* | Source   Sep 2020 – Dec 2020
- Implement FedAvg algorithm for research-oriented standalone simulation.

Teaching Experience

SU. 2021: Probabilistic Methods in Eng. (VE401), Teaching Assistant, Shanghai Jiao Tong University

Technical Skills

Languages: Python, C/C++, MatLab, R, Mathematica, SQL, Neo4j
Develop Tools: kubernetes, docker, git
Frameworks: TensorFlow, Pytorch, Keras, networkx
Libraries: pandas, NumPy, Matplotlib, DGL, networkx