

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 perspective, 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

MILA (founded by Yoshua Bengio), HEC Montréal

Montreal, Canada

Research Intern, Advisor: Dr. Jian Tang

Mar 2021 – Sep 2021(Expected)

- 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.

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.

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.

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.

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.

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