

YUNZHE TIAN

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RESEARCH INTERESTS

AI security including adversarial attack and robust learning for deep neural network, graph neural network and reinforcement learning.

EDUCATION

Beijing Jiaotong University

Advisor: Prof. Wenjia Niu

Beijing Key Laboratory of Security and Privacy in Intelligent Transportation

Master in Electronic Information (Artificial Intelligence)

Sep 2020 - Jun 2022 (expected)

Beijing Information Science & Technology University

Beijing, China

Bachelor in Information System & Information Management *GPA: 4.02*

Sep 2016 - Jun 2020

INTERN AND RESEARCH EXPERIENCE

Beijing Jiaotong University

Research Intern

Mar, 2021 - Present

- Develop a Professional Domain Knowledge Graph System used for information mining, including semantic-based retrieval, knowledge-based Q&A, etc.
- Advisor: Prof. Wenjia Niu

Knowledge Engineering Group, Tsinghua University

Research Intern

Sep, 2019 - Jun, 2020

- Researching on named entity open relation extraction algorithm for Beijing Travel Knowledge Graph.
- Advisor: Prof. Juanzi Li

Knowledge Engineering Group, Tsinghua University

Research Intern

Sep, 2018 - Jun, 2019

- Based on the data of Aminer System, making prediction on the research lifespan of scholars via machine learning and deep learning
- Advisor: Dr. Peng Zhang

PUBLICATIONS

Yunzhe Tian, Yike Li, Yingxiao Xiang, Wenjia Niu, Endong Tong, and Jiqiang Liu. Curricular Reinforcement Learning for Robust Policy in Unmanned CarRacing Game. In *NDSS 2021, Workshop on Automotive and Autonomous Vehicle Security (AutoSec)*.

Yunzhe Tian, Jiqiang Liu, Endong Tong, Wenjia Niu, Liang Chang, Qi Alfred Chen, Gang Li, and Wei Wang. Towards Revealing Parallel Adversarial Attack on Politician Socialnet of Graph Structure. In *Security and Communication Networks (SCN)*, 2021.

Endong Tong, Wenjia Niu, **Yunzhe Tian**, Jiqiang Liu, Thar Baker, Sandeep Verma, and Zheli Liu. A Hierarchical Energy-efficient Service Selection Approach with Qos Constraints for Internet of Things. In *IEEE Transactions on Green Communications and Networking (TGCN)*, 2021.

Yalun Wu, Minglu Song, Yike Li, **Yunzhe Tian**, Endong Tong, Wenjia Niu, Bowei Jia, Haixiang Huang, Qiong Li and Jiqiang Liu. Improving Convolutional Neural Network-based Webshell Detection through Reinforcement Learning. In *The 23rd International Conference on Information and Communications Security (ICICS 2021)*, 2021.

Tong Chen, Yingxiao Xiang, Yike Li, **Yunzhe Tian**, Endong Tong, Wenjia Niu, Jiqiang Liu, Li Gang and Qi Alfred Chen. Protecting Reward Function of Reinforcement Learning via Minimal and Non-catastrophic Adversarial Trajectory. In *The 40th International Symposium on Reliable Distributed Systems (SRDS 2021)*, 2021.

王硕汝, 牛温佳, 童恩栋, 陈彤, 李赫, **田蕴哲**, 刘吉强, 韩臻, 李滢东. 强化学习离线策略评估研究综述. 计算机学报, 2021.

Yunzhe Tian, Yingdi Wang, Endong Tong, Wenjia Niu, Liang Chang, Qi Alfred Chen, Gang Li, and Jiqiang Liu. Exploring Data Correlation between Feature Pairs for Generating Constraint-based Adversarial Examples. In *IEEE 26th International Conference on Parallel and Distributed Systems (ICPADS 2020)*, 2020.

Xinyu Huang, **Yunzhe Tian**, Yifei He, Endong Tong, Wenjia Niu, Chenyang Li, Jiqiang Liu, and Liang Chang. Exposing Spoofing Attack on Flocking-based Unmanned Aerial Vehicle Cluster: A Threat to Swarm Intelligence. In *Security and Communication Networks (SCN)*, 2020.

Bowei Jia, **Yunzhe Tian**, Di Zhao, Xiaojin Wang, Chenyang Li, Wenjia Niu, Endong Tong, and Jiqiang Liu. Bidirectional Rnn-based Few-shot Training for Detecting Multi-stage Attack. In *The 16th International Conference on Information Security and Cryptology (INSCRYPT 2020)*, 2020.

Qinghua Wen, **Yunzhe Tian**, Xiaohui Zhang, Ruoyun Hu, Jinsong Wang, Lei Hou, and Juanzi Li. Type-aware Open Information Extraction via Graph Augmentation Model. In *China Conference on Knowledge Graph and Semantic Computing (CCKS 2020)*, 2020.

ACADEMIC EXPERIENCE

Oral Presentation in **AutoSec Workshop @ NDSS'21** (remote presentation)

Oral Presentation in **Inscrypt 2020**, Guangzhou, China

Oral Presentation in **ICPADS 2020**, Hong Kong, China (remote presentation)

SELECTED AWARDS

Excellent Undergraduate of Beijing City	2020
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Excellent Undergraduate Thesis of Beijing City	2020
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Excellent Undergraduate of Beijing Information Science & Technology University	2020
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Excellent Undergraduate Thesis of Beijing Information Science & Technology University	2020
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National Scholarship of China	2019
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President Scholarship of Beijing Information Science & Technology University	2019
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TECHNICAL STRENGTHS

Deep Learning Software Stacks:	Pytorch, Tensorflow
Programming Languages:	Proficient with Python, Java