Yifan Song

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Education

- **Southeast University** 2018.09 – expected 2022.06 Bachelor of Computer Science and Technology
  - GPA 3.54/4.0 Average Grade 87.22/100
  - Core Curriculums: Data Structures(92), Algorithm Design(88), Discrete Mathematics(96), Probability and Statistics(94), Software Engineering(93) etc.

Competition Awards

- **The 2018 ICPC Asia Regional Contest, Xuzhou Site** *Silver Medal* 2018.11
- **The 2019 ICPC Asia Regional Contest, Nanchang Site** *Silver Medal* 2019.12
- **The 2020 Jiangsu Collegiate Programming Contest(JSCPC)** *Gold Medal* 2020.11
- **The 2020 CCPC, Mianyang Site** *Silver Medal* 2020.11

Internship&Work

- **Tencent Lightspeed & Quantum Studios Group** 2019.06 – 2019.09
  - Participated in the development of **Plato**, which is a framework for distributed graph computation and machine learning at wechat scale. I mainly focused on the distributed deployment of it.

Project Experiences

- **Obstacle Avoidance System for Monocular UAV** *National Innovation Project*
  - For monocular UAV can't get accurate distance by its single camera, we design a model that can catch the object in camera and compute the distance using deep learning accurately. This project refers to the paper **Digging Into Self-Supervised Monocular Depth Estimation (ICCV 2019)** and **MADER: Trajectory Planner in Multi-Agent and Dynamic Environments**.

Research Experience& Paper

- **MOE Key Laboratory, Southeast University** *Research Assistant* 2019.9 - 2021.10
  - I joined MOE Key Laboratory of Computer Network and Information Integration, Southeast University as a research assistant. My research direction is Dynamic and Heterogeneous Network Embedding, and I'm also interested in Algorithms Design and Analysis. A paper about my work can be seen below.
- **Dynamic Network Embedding By Time-Relaxed Temporal Random Walk** *Conference paper*
  Yifan Song, **Darong Lai***, Zhihong Chong, Zeyuan Pan, **The 28th International Conference on Neural Information Processing (ICONIP2021)**, Accepted, 2021
  - Main contributions: Existing dynamic network embedding methods still have drawbacks when using random walk to generate node sequences. So in this article, a novel model named **T**ime-Rela**x**ed **T**emporal Random **Walk**(**TxTWalk**) for dynamic network embedding is proposed. Firstly, a time-relaxed function is designed, which enables random walk to select the next edge in a time interval, not strictly larger than the time of previously visited edge. It can make the walking sequences obtained by **TxTWalk** contain a wider range of temporal information. Then the node sequences are put into the skip-gram model for training to generate embedding of nodes on dynamic networks.
  - Keywords: network embedding, network representation learning , link prediction, random walk