ZHIYUAN ZHOU

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RESEARCH INTEREST

- My research interests lie at the intersection of **Cyber-physical Systems**, **Data Science**, and **Artificial Intelligence**. I am interested in finding meaning patterns from large-scale data based on data-driven modeling, and designing useful prediction algorithms to solve real-world problems in cyber-physical systems (CPS), such as instance delivery service.

EDUCATION

Southeast University, School of Compute Science and Engineering   Nanjing, China
M.S., Computer Science and Technology   2021.09 - Present
- Advisor: Prof. Shuai Wang
- Relevant Coursework: Algorithm Design & Analysis, Artificial Intelligence, Complex Network and Social Network Analysis, Cyber-Physical Systems and Its Applications.
- **GPA:** 3.85/4.0   **Average Score:** 89.59/100   **Ranking:** 2/71

Southeast University, School of Compute Science and Engineering   Nanjing, China
B.E., Software Engineering   2017.08 - 2021.06
- Relevant Coursework: Advanced Data Structure, Introduction to Artificial Intelligence, Computer Graphics, Introduction to Deep Learning, Data Warehouse & Data Mining.
- **GPA:** 3.64/4.0   **Average Score:** 86.73/100   **Ranking:** 27/108

PUBLICATIONS

[1] **Zhiyuan Zhou**, Xiaolei Zhou, Yao Lu, Hua Yan, Baoshen Guo, and Shuai Wang. 2021. Multi-Source Data-Driven Route Prediction for Instant Delivery. In 2021 17th International Conference on Mobility, Sensing and Networking (MSN). IEEE, 374–381. Get paper

[2] **Zhiyuan Zhou**, Xiaolei Zhou, Baoshen Guo, Shuai Wang, and Tian He. 2024. Multi-sensor Data-driven Route Prediction in Instant Delivery with a 3-Conversion Network. ACM Transactions on Sensor Networks (**TOSN**). Get paper

[3] **Zhiyuan Zhou**, Li Lin, Hai Wang, Xiaolei Zhou, Wei Gong, and Shuai Wang. 2024. A Cross Domain Method for Customer Lifetime Value Prediction in Supply Chain Platform. In Proceedings of the ACM Web Conference 2024 (**WWW '24**).

RESEARCH EXPERIENCE

Intelligence Internet of Things Lab   **Mentored by: Tian He and Shuai Wang**
Nanjing, China   2021.09 - Present
Research on *Multi-source Data-driven Route Prediction for Instant Delivery*
- Investigated the problem of route prediction in instant delivery, which is a challenging issue due to the unique characteristics in the scenario, such as strict deadlines, overlapped delivery time of multiple orders, and diverse individual preferences on delivery routes.
- Proposed a model integrating **multi-source heterogeneous data** information to improve the accuracy of route prediction in instant delivery.
- Designed an improved **graph neural network** to encode the global information considered by the couriers in decision-making and model the complicated decision-making mode of the couriers in the multi-order scene.
- Experimental results on real-word data showed that our model outperforms other state-of-the-art baselines and offers up to 85.51% of the route prediction precision.

INDUSTRY EXPERIENCE

Algorithm Internship, Technology and Data Intelligence Division in JD Logistics

Beijing, China   2022.07 - 2023.01

- Participated in the project "User Recommendation based on **Knowledge Graph**" and undertook the following works: Analyzed user data to explore data distribution, mined key factors affecting user sign-ups, and performed feature engineering to enrich knowledge graphs. Designed experiments to evaluate the effect of user recommendation models.

Development Internship, China Communications Services Corporation Limited

Nanjing, China   2020.08 - 2021.02

- Participated in the front-end and back-end development of the project "Manpower Assistant WeChat App". Investigated the related technologies of research projects such as "Text Content-based Spam Identification".

ACTIVITIES

- Teaching Assistance, Principle of Database Systems, Southeast University   2021.09 - 2021.12
- Outstanding Volunteer, Cyrus Tang Love Society, Southeast University   2017.10 - 2021.06

HONORS & AWARDS

First-class Academic Scholarship	Southeast University	2022.10
The Second Prize in the Eighth Jiangsu "Internet+" Student Innovation and Entrepreneurship Competition	Jiangsu Education Department, China	2022.08
Merit Postgraduate	Southeast University	2022.06
Merit Student	Southeast University	2019.10
Course Scholarship	Southeast University	2018.06

SKILLS & INTERESTS

- Language Skills: Chinese (native), English (fluent)
- Computer Skills: Python, PyTorch, C/C++, Java, Microsoft Office Tools, LaTeX
- Interests: Traveling, Photography, Reading