

Johnny Yutian Zhang

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Short Bio.

Yutian Zhang is a graduate student pursuing an M.S. degree in the School of Intelligent Systems Engineering at Sun Yat-sen University, under the supervision by Prof. Haipeng Zeng. His research interests include data visual analytics, visualization, and transportation big data.

Education

Sun Yat-sen University, Postgraduate Sept 2022 – Present

- GPA: 3.96/5.0 (Rank 1/18)
- **Research Interests:** Visual Analytics, Data Visualization, Transportation Big Data

Sun Yat-sen University, B.S. in Traffic Engineering Sept 2018 – June 2022

- GPA: 3.98/5.0 (Rank 5/69)
- **Coursework:** Traffic Big Data, Machine Learning, Internet of Vehicles, Image Processing and Computer Vision

Publications

CSLens: Towards Better Deploying Charging Stations via Visual Analytics — A Coupled Networks Perspective July 2024

Yutian Zhang, Liwen Xu, Shaocong Tao, Quanxue Guan, Quan Li, Haipeng Zeng
IEEE Transactions on Visualization and Computer Graphics (IEEE VIS 2024)

MARLens: Understanding Multi-agent Reinforcement Learning for Traffic Signal Control via Visual Analytics April 2024

Yutian Zhang, Guohong Zheng, Zhiyuan Liu, Quan Li, Haipeng Zeng
IEEE Transactions on Visualization and Computer Graphics

EVCSeer: An Exploratory Study on Electric Vehicle Charging Stations Utilization via Visual Analytics April 2024

Yutian Zhang, Shuxian Gu, Quan Li, Haipeng Zeng
IEEE Computer Graphics and Applications

Projects

Human-Controllable Image Generation in Autonomous Driving Sept 2023 - July 2024

- Developed an interactive interface to assist users in generating test samples for autonomous driving, including different weather, light conditions and adding objects.
- Tools Used: Python, D3.js, Vue.js

ChinaVis 2023 Visual Analytics Challenge May 2023 - June 2023

- Designed and developed a visual analytics system to explore the spatial-temporal patterns of a road network
- Tools Used: Python, QGIS, D3.js, Vue.js

Cellular Data Analysis Oct 2022 - Dec 2022

- Preprocessed raw cellular data and analyzed city-level mobility
- Tools Used: Python

Honors And Awards

2021: National Scholarship, Ministry of Education of China

2018 - 2021 Excellent Student Scholarship, Sun Yat-sen University

Teaching Assistant Experience

Visualization and Visual Analytics

Feb 2024 - July 2024

- Prepared code examples for D3.js and web development, designed assignments and projects

Software Engineering

Feb 2023 - July 2023

- Refined course materials and designed quizzes

Skills

Coding: Python, JavaScript, SQL

Data Analysis: Pandas, Matplotlib, Numpy

Machine Learning: Scikit-learn, PyTorch

Web Development/Design: D3.js, Vue.js, Bootstrap, Flask/Django, Figma

Other: Photography, Piano