

# Johnny Yutian Zhang

Shenzhen, China | zhangyt85@mail2.sysu.edu.cn | <https://thunderzh99.github.io/>

## Short Bio.

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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 visual analytics, urban big data and interpretable artificial intelligence.

## Education

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**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

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**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

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**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

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**2021:** National Scholarship, Ministry of Education of China

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

## Teaching Assistant Experience

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### 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

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**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