

Chuang Yang

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EDUCATION

Department of Information & Communication Engineering, the University of Tokyo

Pursing Ph.D degree in Information Science and Technology

Supervised by [Prof. Kauro Sezaki](#) and [Prof. Renhe Jiang](#)

Since Oct. 2022

Komaba, Japan

Center for Spatial Information Science, the University of Tokyo

M.S. degree in Socio-Cultural Environmental Studies

Supervised by [Prof. Ryosuke Shibasaki](#) and [Prof. Renhe Jiang](#)

Sep. 2020 – Sep. 2022

Kashiwa, Japan

Center for Spatial Information Science, the University of Tokyo

Research Student

Supervised by [Prof. Ryosuke Shibasaki](#) and [Prof. Renhe Jiang](#)

Oct. 2019 – Aug. 2020

Kashiwa, Japan

Southern University of Science and Technology

B.S. degree in Computer Science

Supervised by [Prof. Bo Tang](#)

Sep. 2015 – Jun. 2019

Shenzhen, China

RESEARCH

Research Areas -> All about the mobility data :)

- LLM for Large-scale Human Mobility Modeling (Ongoing*)
- Mobility **Data Management** ([VLDB 25](#))
- Mobility **Simulation & Generation** ([TSAS 22](#), [NeurIPS 24](#))
- Mobility **Visualization** ([ICDE 19](#), [TVCG 22](#), [BDMS](#))
- Deep Learning for Mobility **Prediction** at Different Spatial Scale
 - * Region-level ([WWW 23](#), [ECML/PKDD 22,21](#))
 - * Grid-level ([TIST 22](#), [TKDE 21](#))
 - * Individual-level ([SIGSPATIAL 20](#), [23](#), [24](#), [NeurIPS 24](#))

Selected Research Papers *Corresponding Author

- **Chuang Yang**, Renhe Jiang, Xiaohang Xu, Chuan Xiao, Kaoru Sezaki. SIMformer: Single-Layer Vanilla Transformer Can Learn Free-Space Trajectory Similarity. *The Proceedings of the VLDB Endowment (PVLDB)*, Vol. 18, No. 2, pp. 390-398, 2024. [[pdf](#)] [[code](#)]
- **Chuang Yang**, Zhiwen Zhang, Zipei Fan, Renhe Jiang, Quanjun Chen, Xuan Song, Ryosuke Shibasaki. EpiMob: Interactive Visual Analytics of Citywide Human Mobility Restrictions for Epidemic Control. *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, Vol. 29, No. 8, pp. 3586-3601, 2023. [[pdf](#)] [[code](#)] [[demo video](#)]
- **Chuang Yang**, Yilan Zhang, Bo Tang, Min Zhu. Vaite: a Visualization-assisted Interactive Big Urban Trajectory Data Exploration System. *Proc. of the 35th IEEE International Conference on Data Engineering (ICDE)*, Macau, China, Apr. 2019. [[pdf](#)]
- Peizhi Tang, **Chuang Yang***, Tong Xing, Xiaohang Xu, Renhe Jiang, Kaoru Sezaki. Instruction-Tuning Llama-3-8B Excels in City-Scale Mobility Prediction. *Proc. of the 32th International Conference on Advances in Geographic Information Systems (HuMob'24@ACM SIGSPATIAL)*, Atlanta, USA, Oct. 2024. [[pdf](#)] [[code](#)]

Selected Resource Papers

- **Chuang Yang**, Renhe Jiang, Ryosuke Shibasaki. MaaS System Visualization. *Big Data and Mobility as a Service 9*, 245-263, Elsevier, 2022. [[pdf](#)]
- Yudong Tao, **Chuang Yang**, Tianyi Wang, Erik Coltey, Yanxiu Jin, Jinghao Liu, Renhe Jiang, Zipei Fan, Xuan Song, Ryosuke Shibasaki, Shu-Ching Chen, Mei-Ling Shyu, Steven Luis. A Survey on Data-Driven COVID-19 and Future Pandemic Management. *ACM Computing Surveys (CSUR)*, Jun. 2022. [[pdf](#)]

WORKING EXPERIENCE

Loregit Inc.

CTO, Technical Co-founder (Freelance)

Jan. 2020 – Aug. 2024

Shenzhen, China

- A start-up company established with classmates during undergraduate studies.
- Committed to developing a knowledge management platform called Loregit.
 - * It stores all human knowledge and their dependencies.
 - * Knowledge Mirror: manage personal knowledge status in cloud like managing package dependencies.
 - * Knowledge Navigation: help users find the best learning path given the learning objective.
 - * Consensus Mechanism: collaborative editing, public voting, to promote iterative upgrades of KG.

LocationMind Inc.

Research Intern (Part time)

Apr. 2020 – Apr. 2022

Tokyo, Japan

- Designed a fine-grained epidemic model to simulate the propagation dynamics in the Greater Tokyo Area.
- Integrated Stop Points Detection&Time Interpolation functions into HMM Map Matching Algorithm in Java.
- Joined [xPop](#) team and in charge of infrastructure operation and maintenance.

SouthIntelligence Tech. Co. Ltd.

Software Engineering Intern (Full time), supervised by [Dr. Yilun Cai](#)

Jul. 2018 – Oct. 2018

Shenzhen, China

- Participated in building an elasticsearch-based macro policy search engine.
 - * Designed and developed a mini web app for the interactive exploration of elasticsearch scoring function.
 - * Developed part of search engine queries.
 - * Built a Python script for deployment in production environment.
 - * Developed the background master control program (MCP) in Python.

Database Group@SUSTech

Undergraduate research assistant (Part time), supervised by [Prof. Bo Tang](#)

Oct. 2017 – Jul. 2019

Shenzhen, China

- Teacher Assistant for CS302 Operating System, Spring 2019, CSE@SUSTech
- Proposed a data visualization system, named [Vaite](#).
 - * Published at IEEE ICDE 2019 in first author.
 - * A visualized assisted exploration system to help users discover useful insights from big trajectories.
 - * Oriented towards users without experience or knowledge on issuing their analysis tasks by SQL like queries.
 - * Driven by Apache Spark, thus supports near real time response.

COMMUNITY SERVICES

- Program Committee Member for [ECML/PKDD 2021,2022,2023](#)
- Reviewer for Journal [IEEE TITS](#), [ACM TSAS](#), [IEEE TMC](#)
- Subreviewer for [ACM SIGSPATIAL 2021,2022](#), [CIKM 2023](#), [Web4Good Trac@WWW 2024](#)
- External Reviewer for [PAKDD 2023, 2024](#)

SELECTED AWARDS

SPRING-GX Fellowship

1st in Mean Rank, 2nd@GeoBLEU, and 3rd@DTW

Second Price, The Creative Founder Award

Bronze Award, The Challenge Cup

Student Travel Award

Dean Scholarship

Outstanding Freshmen Scholarship

JST, Japan, 2022-2025

HuMob Challenge@ACM SIGSPATIAL, 2024

Association of Inventions, China, 2021

Guangdong, China, 2020

IEEE ICDE, 2019

Shuli College@SUSTech, 2018

SUSTech, 2015