

Chuang Yang

[🏠 HomePage](#) | [G GoogleScholar](#) | [✉ chuangyang@g.ecc.u-tokyo.ac.jp](mailto:chuangyang@g.ecc.u-tokyo.ac.jp)

EDUCATION

- Department of Information & Communication Engineering, the University of Tokyo** Since Oct. 2022
Pursing Ph.D degree in Information Science and Technology Komaba, Japan
Supervised by [Prof. Kauro Sezaki](#) and [Prof. Renhe Jiang](#)
- Center for Spatial Information Science, the University of Tokyo** Sep. 2020 – Sep. 2022
M.S. degree in Socio-Cultural Environmental Studies Kashiwa, Japan
Supervised by [Prof. Ryosuke Shibasaki](#) and [Prof. Renhe Jiang](#)
- Center for Spatial Information Science, the University of Tokyo** Oct. 2019 – Aug. 2020
Research Student Kashiwa, Japan
Supervised by [Prof. Ryosuke Shibasaki](#) and [Prof. Renhe Jiang](#)
- Southern University of Science and Technology** Sep. 2015 – Jun. 2019
B.S. degree in Computer Science Shenzhen, China
Supervised by [Prof. Bo Tang](#)

RESEARCH

Research Areas -> All about the mobility data :)

- **Representation Learning on Large-scale Geospatial Data (Ongoing*)**
- Trajectory-based Epidemic Simulation ([TVCG 22](#), [TSAS 22](#))
- Interactive Trajectory Data Exploration ([ICDE 19](#))
- 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](#), [SIGSPATIAL 23](#))

Selected Research Papers

- **Chuang Yang**, Zhiwen Zhang, Zipei Fan, Renhe Jiang, Qunjun 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)*, Apr. 2022. [[pdf](#)] [[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](#)]
- Zipei Fan, **Chuang Yang**, Zhiwen Zhang, Xuan Song, Yinghao Liu, Renhe Jiang, Qunjun Chen, Ryosuke Shibasaki. Human Mobility based Individual-level Epidemic Simulation Platform. *ACM Transactions on Spatial Algorithms and Systems (TSAS)*, Mar. 2022. [[pdf](#)]
- Qi Cao, Renhe Jiang, **Chuang Yang**, Zipei Fan, Xuan Song, Ryosuke Shibasaki. MepoGNN: Metapopulation Epidemic Forecasting with Graph Neural Networks. *Proc. of the 26th European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML/PKDD)*, Sep. 2022. [[pdf](#)]

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.

Jan. 2020 – Now

CTO, Technical Co-founder (Freelance)

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.

Apr. 2020 – Apr. 2022

Research Intern (Part time)

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.

Jul. 2018 – Oct. 2018

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

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

Oct. 2017 – Jul. 2019

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

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](#)
- Reviewer for Journal [IEEE TITS](#), [ACM TSAS](#)
- Subreviewer for [ACM SIGSPATIAL 2021,2022](#), [CIKM 2023](#), [Web4Good Track WWW 2024](#)
- External Reviewer for [PAKDD 2023, 2024](#)

SKILLS

- **Languages:** Python, JavaScript(ReactJS, JQuery), HTML/CSS, SQL, Java, Scala
- **Data Visualization Tools:** Leaflet.js, Deck.GL, Recharts, Material-UI, D3.js
- **Big Data Processing Tools:** Apache Spark SQL
- **Data Exploration Tools:** Lux
- **Development Framework:** Django (Python), Flask-RESTful (Python), Play (Scala)
- **Others:** Elasticsearch, Linux Commands