

# Anping Zhang

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Tsinghua University  
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**Research Interests:** Data Mining, Graph, Topological Data Analysis

[GitHub]  
[Google scholar]

## EDUCATION

- Ph.D. Data Science and Information Technology, Tsinghua-Berkeley Shenzhen Institute, Tsinghua University, 2021-2025 (expected)
- M.Sc. Data Science for Cultural Heritage (with distinction), The Bartlett, University College London, The United Kingdom, 2019-2020
- B.Sc. Mathematics with Statistics for Finance (with honors), Department of Mathematics, Imperial College London, The United Kingdom, 2015-2019

## PUBLICATIONS

### Journal Articles

- 2022 **Anping Zhang\***, Ke Zhang\*, Wanda Li, Yue Wang, Yang Li and Lin Zhang. "Optimising Self-organised Volunteer Efforts in Response to the COVID-19 Pandemic." *Humanities and Social Sciences Communications (Humanit Soc Sci Commun)* 9.1 (2022): 1-12. doi:<https://doi.org/10.1057/s41599-022-01127-2>

### Conference Articles

- 2023 Dexu Kong, **Anping Zhang**, Yang Li. "Learning Persistent Community Structures in Dynamic Networks via Topological Data Analysis." *The 38th Annual AAAI Conference on Artificial Intelligence* (Accepted)
- 2023 Shutong Chen\* , **Anping Zhang\***, Qiqi Chen\*, Yang Li. "Volunteer Retention and Future Collaboration Prediction in Volunteer Crowdsourcing Platforms." *In 2023 IEEE 33rd International Workshop on Machine Learning for Signal Processing (MLSP), pp. 1-5. IEEE, 2023.*

## RESEARCH EXPERIENCE

2022 - now **Topological Data Analysis** advised by Prof. Yang Li.

2020 - 2021 **Volunteer Behavior Analysis** advised by Prof. Yang Li, Yue Wang and Lin Zhang.

- We proposed a quantitative way to measure self-organization in volunteer behaviors based on normalized conditional entropy.
- Analyzed causal effects of volunteer behaviors using a modified version of PCMCI+ algorithm.
- Homepage of this work : <https://anpingzzzz.github.io/pioneers2021.github.io/>

2019 - 2020 **Statistical Analysis of Paper Collections Data** advised by Dr. Josep Grau-Bove and Prof. Tom Fearn.

- We proposed a second-order Markov Chain model to predict the future number of paper visits in the City Archives of Amsterdam.

## INNOVATIVE PROJECT

2013 **A Crawler Mobile Car** (The 28th China Adolescents Science & Technology Innovation Contest).

- Proposed properties such as light-driven and auto-adapting
- Constructed a prototype after studying implementation of existing crawler mobile cars
- Won the Gold prize and Ranked top five out of 350 participating teams worldwide

2013 **A Weighing Spoon** (National Utility Model Patent)

- Able to weight condiments using weighing sensors and signal magnifying modules.
- Patent No.: ZL 2013 2 0236015.9

2013 **A Smart Mouse** (National Utility Model Patent)

- Able to record online surfing time using temperature sensors, timing modules and vibration-detecting devices
- Patent No.: ZL 2013 2 0237167.0

## INDUSTRY EXPERIENCES

2019.6 - 2019.9 **Chinese Desk Sales and Trading Intern** at *VORTO Trading Ltd* (London, UK)

- Cooperating with commercial banks, accountant company and property investment agents

2018.8 - 2018.10 **Auditing Intern** at Ernst & Young Global Shared Services Co. Ltd (Dalian, China)

- Collected enterprise information, prepared due diligence reports, contacted external suppliers

2018.7 - 2018.8 **Asset Management Intern** at *China Galaxy Financial Holdings Ltd* (Beijing, China)

- Financial Data Visualization and Analysis

2017.6 - 2017.7 **Financial Markets Intern** at *Bank of East Asia Ltd.* (Shanghai, China)

- Drafting reports on daily trading performance

2016.10 - 2017.1 **Part-time FX Trader** at *HooCapital Ltd.* (London, UK)

- Forex Trading for Gio Currency

## SERVICE

2023 Autumn Teaching Assistant of The Strategic Value of Innovation Technology by Prof. Xiaoquan (Michael) Zhang, Tsinghua University

2023.8 Teaching Assistant of Summer Camp by Prof. Xiao-Ping Zhang, Prof. Wenbo Ding, and Prof. Yansong Tang, X-institute

2022 Autumn Class and Student Representative at SIGS, Tsinghua University

2021 & 2022 Autumn Teaching Assistant of Writing Scientific Papers & Making Presentations in English by Prof. Faisal Nadeem Khan, TBSI.

2021.7 Member of the executive committee of TBSI Workshop on Learning Theory (TBSI-WOLT'21).

2019 Academic Representative at University College London

## HONORS & AWARDS

- 2023.7 Best Poster Award in *International Workshop on Learning and Information Theory 2023 (WOLIT'23)*
- 2023.5 Best Report & Distinguished Paper Award in 15th Nanshan Academic Forum for Doctoral Students in the Guangdong Hong Kong-Macao Greater Bay Area, in conjunction with the 706th Doctoral Forum of Tsinghua University.
- 2022.12 The Second Prize Scholarship of SIGS, Tsinghua University
- 2020.6 Shortlisted for the academic representative of the year at University College London.
- 2014.6 Copper Award in the Cambridge Chemistry Challenge 2014
- 2014.3 Bronze Certificate in the 46th International Chemistry Olympiad UK Round One
- 2013.11 Gold Certificate in UK Senior Mathematical Challenge 2013 with *full mark 125/125 on the paper*
- 2013.8 Gold Prize in The 28th China Adolescents Science & Technology Innovation Contest

Updated February 2024