

ALEXANDER ZHOU

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PERSONAL DETAILS

Full Name: Alexander Tiannan ZHOU

Date of Birth: 13/01/1997

Citizenship: Australian

Homepage: atzhou.com

EDUCATION

The Hong Kong University of Science and Technology *2019 - Present*

Doctor of Philosophy in Computer Science

Supervisor: Prof. Lei Chen

The University of Queensland *2014 - 2019*

Bachelor of Engineering (Honours) [Software Engineering] and Bachelor of Science [Statistics]

Thesis Supervisor: Dr. Hongzhi Yin

Brisbane Grammar School *2009 - 2013*

RESEARCH EXPERIENCES

University of Waterloo *Nov 2022 - March 2023*

Visiting Overseas Researcher

- Spent time at the Data Systems Group at the University of Waterloo working under Prof. Tamer Özsu.
- Involved with working on modelling Positive Communities whilst being cognisant of undesirable attributes these systems traditionally can contain (resulting in an ICDE paper).

The Chinese University of Hong Kong *2018 - 2019*

Research Assistant

- Worked with a group of researchers in The Department of Systems Engineering and Engineering Management under the supervision of Prof Jeffrey Xu Yu.
- Involved with research projects in graph databases, specifically with the discovery of maximum edge bicliques in large graphs.

The University of Queensland *2018 - 2019*

Thesis Project

- Worked under the supervision of Dr. Hongzhi Yin on a year-long thesis project regarding graph coarsening for network embedding.
- Involved in a conference paper publication [SIGKDD 2019].
- Received grade of 7/7 (High Distinction)

The University of New South Wales
Summer Research Scholarship

2017 - 2018

- Worked under the supervisions of Prof. Xuemin Lin, A/Profs. Wenjie Zhang and Ying Zhang regarding finding cohesive subgraphs in large graphs.
- Involved in two conference paper publications [ADC 2018 and DASFAA 2018].

Siemens
Internship

2016 - 2017

- Located in Suzhou, China
- Worked on a series of small projects including a targeted web-crawler in Java and using JSoup in conjunction with a MongoDB database.

TEACHING EXPERIENCES

The Hong Kong University of Science and Technology
Teaching Assistant

2020 - 2024

- Worked as a teaching assistant for the courses “COMP4331: Data Mining”, “COMP1029V: Excel VBA Programming Bridging Course” (2 semesters) and “COMP1944: Artificial Intelligence Ethics” for Prof. Lei Chen, Dr. Gibson Lam and Prof. Dekai Wu respectively.

The University of Queensland
Teaching Assistant

2017 - 2019

- Worked as a teaching assistant (5 semesters) for the course “INFS1200/7900: Introduction to Information Systems” which contained over 600 students per semester. The course was under the supervision of Prof. Shazia Sadiq, Prof. Xue Li and Dr. Hassan Khosravi.
- Course outline: Information systems analysis, design and implementation, relational database technology, data modelling, data querying using SQL.
- Activities and Responsibilities: Taught the course content in tutorial sessions, ran practical sessions using phpMyAdmin, grading and creation of assessment, creation of course content material and interviewing and selecting potential new teaching assistants.
- Ranked highly by students with a tutor evaluation of 4.83/5.

PUBLICATIONS

Citations: 368 / **h-Index:** 7 / **i10-Index:** 7

Google Scholar ID: zQSmMZkAAAAJ

DBLP Key: 219/5776

(*): Denotes works where the first author was primarily led by myself.

1. **A Zhou**, Y Wang, L Chen, T Özsü. Positive Communities on Signed Graphs That Are Not Echo Chambers: A Clique-Based Approach. *IEEE International Conference on Data Engineering (ICDE)*. 2024
2. K Chung, **A Zhou**, Y Wang, L Chen. Maximum Balanced (k, ϵ) -Bitruss Detection in Signed Bipartite Graph. *International Conference on Very Large Databases (PVLDB)*. 2024 (*)

3. **A Zhou**, Y Wang, L Chen. Butterfly Counting and Bitruss Decomposition on Uncertain Bipartite Graphs. *International Journal on Very Large Databases (VLDBJ)*. 32: 1013-1036. 2023
4. A Tian, **A Zhou**, Y Wang, L Chen. Maximal D-Truss Search in Dynamic Directed Graphs. *International Conference on Very Large Databases (PVLDB)*. 16(9): 2199-2211. 2023 (*)
5. M Imran, H Yin, T Chen, Q Nguyen, **A Zhou**, K Zheng. ReFRS: Resource-efficient Federated Recommender System for Dynamic and Diversified User Preferences. *ACM Transactions on Information Systems (TOIS)*. 41(3): 1-30. 2023
6. X Sun, H Yin, B Liu, Q Meng, J Cao, **A Zhou**, H Chen. Structure Learning via Meta-Hyperedge for Dynamic Rumor Detection. *IEEE Transactions on Knowledge and Data Engineering (TKDE)*. 35(9): 9128-9139. 2022
7. Y Wang, R Xu, X Jian, **A Zhou**, L Chen. Towards Distributed Bitruss Decomposition on Bipartite Graphs. *International Conference on Very Large Databases (PVLDB)*. 15(9): 1889-1901. 2022
8. K Wang, W Zhang, X Lin, L Qin, **A Zhou**. Efficient Personalized Maximum Biclique Search. *IEEE International Conference on Data Engineering (ICDE)*. 498-511. 2022
9. **A Zhou**, Y Wang, L Chen. Butterfly Counting in Uncertain Bipartite Networks. *International Conference on Very Large Databases (PVLDB)*. 15(2): 211-223. 2021
10. Q Wang, H Yin, T Chen, J Yu, **A Zhou**, X Zhang. Fast-adapting and Privacy-preserving Federated Recommender System. *International Journal on Very Large Databases (VLDBJ)*. 31: 877-896. 2021
11. **A Zhou**, Y Wang, L Chen. Finding Large Diverse Communities on Networks: The Edge Maximum k^* -Partite Clique. *International Conference on Very Large Databases (PVLDB)*. 13(12): 2576-2589. 2020
12. L Guo, H Yin, Q Wang, T Chen, **A Zhou**, N Quoc Viet Hung. Streaming Session-based Recommendation. *ACM International Conference on Knowledge Discovery and Data Mining (SIGKDD)*. 1569-1577. 2019
13. **A Zhou**, F Zhang, L Yuan, Y Zhang, X Lin. Finding Maximal Stable Cores in Social Networks. *Australasian Database Conference (ADC)*. 224-235. 2018
14. F Zhang, L Yuan, Y Zhang, L Qin, X Lin, **A Zhou**. Discovering Strong Communities with User Engagement and Tie Strength. *International Conference on Database Systems for Advanced Applications (DASFAA)*. 425-441. 2018

PROFESSIONAL ACTIVITIES

Program Committee Member: DASFAA, ADMA

Reviewer: TODS

PhD Workshop Invited Speaker: ADC