

# Aoqian Zhang

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RESEARCH INTERESTS	Data Cleaning, Data Imputation, Temporal Anomaly Detection etc.	
EDUCATION	<b>Tsinghua University</b> , School of Software Ph.D. in Software Engineering Thesis: <i>Research on Time Series Data Cleaning</i> (Supervisor: Prof. Jianmin Wang)	August 2013 - July 2018 with <b>Graduation Award</b>
	<b>Tsinghua University</b> , School of Software B.E. in Computer Software	August 2009 - July 2013 with <b>Graduation Award</b>
PROFESSIONAL POSITIONS	<b>School of Computer Science &amp; Technology, Beijing Institute of Technology</b> , Beijing, China Assistant Professor, September 2020 - present	
	<b>Cheriton School of Computer Science, University of Waterloo</b> , Waterloo, ON, Canada Post Doctoral Fellows ( <i>Advisor: Prof. Ihab Francis Ilyas</i> ) September 2018 - August 2020	
HONORS & AWARDS	<b>Tsinghua Zi Jing Scholar</b> ( <i>for counsellor who do fantastic job in research</i> ) 2018 First-class Scholarship (Glodon Scholarship), Tsinghua University 2014,2017 <b>Tsinghua Lin Feng Counsellor Prize</b> ( <i>highest honor to counsellors of undergraduates</i> ) 2016 <b>National Scholarship, Tsinghua University</b> 2015 Excellent Communist Party Member of Master in Tsinghua 2015 <b>Data transfer group champion, Solve for tomorrow, National Youth Science Innovation Experiment Competition</b> 2013	
PUBLICATIONS	[1] Shaoxu Song, <b>Aoqian Zhang</b> , "IoT Data Quality". 29th ACM International Conference on Information and Knowledge Management(CIKM) 2020: 3517-3518. [2] Richard Wu, <b>Aoqian Zhang</b> , Ihab F. Ilyas, Theodoros Rekatsinas, "Attention-based Learning for Missing Data Imputation in HoloClean". 3rd The Conference on Machine Learning and Systems(MLSys) 2020. [3] <b>Aoqian Zhang</b> , Shaoxu Song, Yu Sun, Jianmin Wang, "Learning Individual Models for Imputation", 35th IEEE International Conference on Data Engineering(ICDE), Macao, China, April 8-11, 2019, pp. 160-171. [4] Shaoxu Song, Yu Sun, <b>Aoqian Zhang</b> , Lei Chen, L. Jianmin Wang "Enriching Data Imputation under Similarity Rule Constraints". IEEE Transactions on Knowledge and Data Engineering(TKDE) 32(2): 275-287 (2020). [5] <b>Aoqian Zhang</b> , Shaoxu Song, Jianmin Wang, Philip S. Yu, "Time Series Data Cleaning: From Anomaly Detection to Anomaly Repairing", Proceedings of VLDB(PVLDB), vol. 10, no. 10, pp. 1046-1057, June 2017. [6] <b>Aoqian Zhang</b> , Shaoxu Song, Jianmin Wang, "Sequential Data Cleaning: A Statistical Approach", ACM SIGMOD Conference (ACM SIGMOD), San Francisco, USA, June 26 - July 1, 2016, pp. 909-924. [7] Shaoxu Song, <b>Aoqian Zhang</b> , Lei Chen, Jianmin Wang, "Enriching Data Imputation with Extensive Similarity Neighbors", Proceedings of VLDB(PVLDB), vol. 8, no. 11, pp. 1286-1297, July 2015.	

- [8] Shaoxu Song, **Aoqian Zhang**, Jianmin Wang, Philip S. Yu, “SCREEN: Stream Data Cleaning under Speed Constraints”, ACM SIGMOD Conference (**ACM SIGMOD**), Melbourne, VIC, Australia, May 31 - June 4, 2015, pp. 827-841.

## PATENTS

**Issued Chinese Patents**

- [P1] Jianmin Wang, Shaoxu Song, **Aoqian Zhang**, Correction method for global positioning system data based on speed constraint, ZL201711405160.4, issued

## PROJECTS

**TsQaulity**. A project develops data quality tools for large scale time series data, including data profiling, anomaly detection and data repairing. It is one of the projects in the **National Engineering Laboratory for Big Data Software(NEL-BDS)**.

## INTERNSHIP

Research Intern, Data Engineering Group in K2data, Beijing, China (October 2017 - February 2018)

PROFESSIONAL  
SERVICES

**Reviewer** for ACM Journal of Data and Information Quality

## MENTORSHIP

I am fortunate to work with a great group of graduate and undergraduate students during my PhD time at Tsinghua University:

**Undergraduate Mentorship**

- 2016.07-2017.05: **Director of the Student Affairs Office in School of Software, Tsinghua University**
- 2015.01-2016.07: **Vice Director of the Student Affairs Office in School of Software, Tsinghua University**
- 2012.08-2015.07: **Counsellor of over 60 undergraduates of class 2012 in School of Software, Tsinghua University (won over 5 Excellent Collective Awards and the Lin Feng Counsellor Award)**