

Jiale Chen

jiale_chen@pku.edu.cn

EDUCATION	School of Electronics Engineering and Computer Science (EECS), Peking University , Beijing, China <i>Major in Computer Science and Technology</i> Sep 2018 – Jun 2022(expected) Turing Class - an elite class founded by Prof. John E. Hopcroft; 60 students selected Major GPA: 3.94/4.0 Overall GPA: 3.90/4.0 (top 1%) National School of Development (NSD), Peking University , Beijing, China <i>Double-major in Economics</i> Sep 2020 – Jun 2022(expected)
SKILLS	Programming C/C++, Python, L ^A T _E X
RESEARCH INTERESTS	Theoretical computer science and especially the topics that lie in the intersection with Economics Data structures and algorithm design
MANUSCRIPTS	CONFERENCES (UNDER REVIEW) MicroscopeSketch: Accurate Sliding Estimation Using AdaptiveZooming Zheng Zhong*, Jiale Chen*, Shiqi Jiang, Yutong Hu, Tong Yang, Steve Uhlig submitted to 27th SIGKDD Conference on Knowledge Discovery and Data Mining (SIGKDD 2021). (*:Equal Contribution) Equal Affection or Random Selection: the Quality of Subjective Feedback from a Group Perspective Jiale Chen, Yuqing Kong, Yuxuan Lu submitted to The Twenty-Second ACM Conference on Economics and Computation (EC'21).
RESEARCH EXPERIENCE (BY TOPIC)	Information elicitation <i>Group-level informativeness evaluation through reported choices and predictions</i> Oct 2020-Present Advisor: Dr. Yuqing Kong Peking University <ul style="list-style-type: none">• Collaboratively developed a new metric called f-variety to evaluate a group of people's informativeness in subjective questions, using self-reported choices and predictions of other people's choices.• Showed that f-variety outperforms the baseline metric (the unbalance of choices) in two case studies.• Responsible for designing survey questions and proposing the appropriate model of uninformative people.• Contributed a first-authored paper that has been submitted to EC'21. Data structures and algorithms design in network <i>An algorithmic framework for estimating data streams in sliding window models</i> Mar 2020-Present Advisor: Prof. Tong Yang Peking University <ul style="list-style-type: none">• Collaboratively developed an algorithmic framework, MicroscopeSketch, which can adapt fixed-window algorithms to sliding windows using the two-dimensional quantization and adaptive zooming method.• Responsible for constructing the first version of the algorithm, idea refinement, and the entire experimental work.• Performed extensive algorithm refinement and showed that the developed algorithm outperforms the state-of-the-art on three tasks in both accuracy and speed.• Contributed a first-authored paper that has been submitted to SIGKDD 2021. <i>An algorithmic framework for tasks in hopping windows</i> Mar 2020-Jun 2020 Advisor: Prof. Tong Yang Peking University <ul style="list-style-type: none">• Collaboratively developed a generic and near-optimal framework that can adapt fixed-window algorithms to time-based and count-based hopping windows for basic tasks, using hopping timestamps and local cleaning to clean outdated items.• Responsible for the theoretical validation of the algorithm's additional error as a framework and completed a comprehensive mathematical proof of the error bound brought by hopping timestamps and local cleaning, respectively.• Explained that our algorithm saves space at a small cost using my theoretical proof.• Contributed a co-authored paper.
AWARDS & SCHOLARSHIPS	ICPC Regional Contest Gold Medal 2018, 2019 4 Gold Medals (rank 1, 1, 3, 8) Pacemaker to Merit Student, Peking University 2019 Top 2.5% in Peking University, awarded to one student in each class

POSCO Scholarship for Asian Universities	2019,2020
Top 2.5% in Peking University, awarded to at most one student in each class	
Merit Student, Peking University	2020
Top 5% in Peking University	
May 4th Scholarship, Peking University	2020
Highest award possible for students, more selective than National Scholarship.	
Top 0.5% in Peking University, Top 1/60 in Turing Class	