

# Peng Jia

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## Education

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- **Xi'an Jiaotong University** Xi'an, Shaanxi, China  
• *Ph.D. Candidate of Control Science and Engineering (Supervised by **Pinghui Wang**)* 2016 – present (2nd year)
- **Xi'an Jiaotong University** Xi'an, Shaanxi, China  
• *B.Eng. of Automation Science and Technology* 2012 – 2016

## Awards and Honors

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- National Scholarship for Doctoral Students –2019
- Excellent Graduate Student in Xi'an Jiaotong University –2019
- ICDE 2019 CCF TCDB Student Travel Awards – 2019
- Entrance Scholarship – 2016
- National College Student Information Security Contest, 3rd Prize – 2016
- “Challenge Cup” National Undergraduate Curricular Academic Science and Technology, 2nd Prize – 2015
- China National College Student “Innovation, Originality and Entrepreneurship” Challenge, 3rd Prize in Shaanxi – 2015
- “Si Yuan” Scholarship – 2013

## Research Interests

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- Graph Mining
- Sketch-based and Sampling-based Streaming Algorithms
- Large Scale Graph Analysis
- Online Social Network Measurement
- High Speed Traffic Analysis

## Publications

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- **Peng Jia**, Pinghui Wang, Jing Tao, Xiaohong Guan. “A Fast Sketch Method for Mining User Similarities over Fully Dynamic Graph Streams”. IEEE International Conference on Data Engineering (**ICDE**) 2019, 4-page short paper.
- Pinghui Wang, **Peng Jia**, Yiyang Qi, Sun Yu, Jing Tao, Xiaohong Guan. “REPT: A Streaming Algorithm of Approximating Global and Local Triangle Counts in Parallel”. IEEE International Conference on Data Engineering (**ICDE**) 2019.
- Pinghui Wang, **Peng Jia**, Xiangliang Zhang, Jing Tao, Xiaohong Guan, Don Towsley. “Utilizing Dynamic Properties of Sharing Bits and Registers to Estimate User Cardinalities over Time”. IEEE International Conference on Data Engineering (**ICDE**) 2019.

- Pinghui Wang, **Peng Jia**, Jing Tao, Xiaohong Guan. “Detecting a Variety of Long-Term Stealthy User Behaviors on High Speed Links”. IEEE Transactions on Knowledge and Data Engineering (**TKDE**) 2019.
- Pinghui Wang, **Peng Jia**, Jing Tao, and Xiaohong Guan. “Mining Long-Term Stealthy User Behaviors on High Speed Links”. IEEE International Conference on Computer Communications (**INFOCOM**) 2018.

## Activities

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### Reviewer

- ACM Transactions on Knowledge Discovery from Data (**TKDD**)

### Research Experience

- 2019 VLDB Summer School (in Beijing)

## Projects

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### Sandbox of Dynamic Analysis for Android Application Security –2015

- Redesigned Android framework to monitor application behaviors on Framework layer during runtime.
- Focus on monitoring dynamic behaviors such as network communications, file operations, database operations.
- Automatically install and uninstall applications, smart touch of application interfaces.
- URL: <http://sanddroid.xjtu.edu.cn>

### Detection of Android Root Behaviors Based on Kernel –2016

- Redesigned framework to monitor application behaviors on Linux kernel during runtime.
- Detect root behaviors with significant system destruction patterns.
- Generate application behavioral graphs.

## Programming Skills

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- **Languages:** Python, C, C++, Java, Javascript, SQL
- **Technologies:** Web Development, Android Application Development