

# Cheng XU

PH.D. CANDIDATE

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## Education

### Hong Kong Baptist University

PH.D. CANDIDATE IN COMPUTER SCIENCE

Hong Kong

Nov. 2014 – Present

### Huazhong University of Science and Technology

BACHELOR OF ENGINEERING IN ELECTRONICS & INFORMATION ENGINEERING

Wuhan, China

Sep. 2009 – Jun. 2014

## Professional Experience

### Hong Kong Baptist University

PH.D. CANDIDATE

Hong Kong

Nov. 2014 – Present

- Advisors: Prof. Jianliang Xu and Dr. Byron Choi
- Thesis: Authenticated Query Processing in the Cloud

### Syracuse University

VISITING SCHOLAR

Syracuse, NY, USA

Sep. 2017 – Dec. 2017

- Advisor: Dr. Yuzhe Tang
- Project: Strong Secure Data Analytics on Hardware Enclaves

### Homebrew

CORE MAINTAINER

Hong Kong

Feb. 2015 – Feb. 2017

- The most popular package manager on macOS
- <https://brew.sh>

### Huazhong University of Science and Technology

FINAL YEAR PROJECT

Wuhan, China

Sep. 2013 – Jun. 2014

- Advisor: Dr. Xiaojun Hei
- Project: Towards SDN-Based Smart Home Router: Design and Implementation

## Publications

- [1] **C. Xu**, C. Zhang, and J. Xu, “vChain: Enabling verifiable boolean range queries over blockchain databases,” in *Proceedings of the 2019 ACM SIGMOD International Conference on Management of Data (SIGMOD’19)*, Amsterdam, Netherlands, Jun. 2019, **Full Paper**.
- [2] **C. Xu**, J. Xu, H. Hu, and M. H. Au, “When query authentication meets fine-grained access control: A zero-knowledge approach,” in *Proceedings of the 2018 ACM SIGMOD International Conference on Management of Data (SIGMOD’18)*, Houston, TX, USA, Jun. 2018, pp. 147–162, **Full Paper**.
- [3] C. Zhang, **C. Xu**, J. Xu, and B. Choi, “Distributed kNN query authentication,” in *Proceedings of the 19th IEEE International Conference on Mobile Data Management (MDM’18)*, Aalborg, Denmark, Jun. 2018, pp. 167–176, **Full Paper**.
- [4] **C. Xu**, Q. Chen, H. Hu, J. Xu, and X. Hei, “Authenticating aggregate queries over set-valued data with confidentiality (extended abstract),” in *Proceedings of the 34th IEEE International Conference on Data Engineering (ICDE’18)*, Paris, France, Apr. 2018, pp. 1797–1798, **Poster Paper**.
- [5] **C. Xu**, Q. Chen, H. Hu, J. Xu, and X. Hei, “Authenticating aggregate queries over set-valued data with confidentiality,” *IEEE Transactions on Knowledge and Data Engineering (TKDE)*, vol. 30, no. 4, pp. 630–644, Apr. 2018, **Full Paper**.
- [6] Y. Tang, Z. Xing, **C. Xu**, J. Chen, and J. Xu, “Lightweight logging over the blockchain for data-intensive applications,” in *2nd Workshop on Trusted Smart Contracts at International Conference on Financial Cryptography and Data Security*, Santa Barbara Beach Resort, Curaçao, Mar. 2018, **Workshop Paper**.
- [7] Q. Zhu, H. Hu, **C. Xu**, J. Xu, and W.-C. Lee, “Geo-social group queries with minimum acquaintance constraints,” *The VLDB Journal (VLDBJ)*, vol. 26, no. 5, pp. 709–727, Jul. 2017, **Full Paper**.

## Skills

**Programming** C/C++, Java, Python, Ruby, Matlab, LaTeX, Bash, SQL, Vimscript, Javascript, HTML, CSS  
**Tools** Vim, Tmux, Git, macOS, Linux  
**Languages** English, Mandarin

## Awards

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| 2018       | SIGMOD Travel Award, <i>ACM</i>  |
| 2018       | Postgraduate Research Symposium Best Research Performance Award & Best Poster Award, <i>Hong Kong Baptist University</i> |
| 2018       | Yakun Scholarship Scheme for Mainland Postgraduate Students, <i>Hong Kong Baptist University</i>                         |
| 2017       | Excellent Teaching Assistant Performance Award, <i>Hong Kong Baptist University</i>                                      |
| 2015, 2016 | Teaching Assistant Performance Award, <i>Hong Kong Baptist University</i>  |