

Chenxing Li

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Education

- Aug.2013– **Tsinghua University**, Beijing, China.
- Aug.2017
- B.S. in Computer Science
 - Enrolled in [Yao Class](#), a special pilot CS program led by [Prof. Andrew C. Yao](#) for talented students.
 - GPA: Overall 91/100 (Rank 5/33).
 - [Bronze medal of Yao Award](#). Yao Award is established to recognize the outstanding performances of Yao Class students.
- Jan.2016– **Aarhus University**, Aarhus, Denmark.
- Jun.2016
- Exchange Student in Computer Science Department

Research Experience

Research Interest: Security, Cryptography, FinTech

- Nov.2016– **Privacy on Blockchain**, Tsinghua University.
- Advisor: Prof. Wei Xu
 - Based on zerocash.
 - We are using snark and other cryptographic primitives to design blockchain with various data access permissions.
- Jul.2016– **Word Embedding**, Tsinghua University.
- Aug.2016
- Advisor: Prof. Gerard de Melo
 - Based on Mikolov et al.'s work: word2vec.
 - I investigate context-based techniques and adapt word2vec to account for expanded contexts. Experiments on similarity benchmarks show significant improvements for rare words.
 - Peer-reviewing paper: Context-Based Few-Shot Word Representation Learning, ACL 2017.
- Apr.2016– **Function Reveal Encryption**, Aarhus University.
- Jun.2016
- Advisor: Prof. Claudio Orlandi
 - Focus on Order Reveal Encryption and Function Reveal Encryption.
 - We designed some IND-OCPA schemes for high dimensional Order Reveal Encryption and Hamming distance Reveal Encryption.
 - Peer-reviewing paper: Revealing Encryption for Partial Ordering, ACNS 2017.
- Mar.2015– **Fast Traffic Data Retrieval**, Tsinghua University.
- Dec.2015
- Advisor: Dr. Zhen Chen
 - Focus on compression algorithm design for bitmap indexes of traffic data archive.
 - I propose a new algorithm, which can be applied on more scenarios and achieves good performance in both theoretical and implementation.
 - Two peer-reviewed papers list in the next section.

Publications

C. Li, Z. Chen, W. Zheng, Y. Wu and J. Cao, "BAH: A new bitmap index for data retrieval in traffic archival," *IEEE Conference on Local Computer Networks*, 2016

Y. Wu, Z. Chen, J. Cao, H. Li, C. Li, Y. Wang, and W. Zheng, "CAMP: A new bitmap index for data retrieval in traffic archival," *IEEE Communication Letters*, 2016.

Peer-Reviewing Papers

Context-Based Few-Shot Word Representation Learning, ACL 2017

Revealing Encryption for Partial Ordering, ACNS 2017

Technical Strengths

- Computer skills
- **Programming Languages:** Python, Java, C++, Cython
 - **Softwares:** Mathematica, MATLAB
 - **Tools:** GDB, Bash Script, Valgrind

Mathematics Abstract Algebra, Calculus, Complex Variables Function, Linear Algebra, Probability Theory

Awards

Sep.2016 **Brozen Medals**, Yao Award.

- Yao Award is established to recognize the outstanding performances of Yao Class students.

Sep.2015 **Champion**, Android Application Making Contest, iHandy.

Jan.2013 **Gold Medals**, Chinese Mathematical Olympiad(CMO).

Dec.2014 **Third Prizes**, 16th Electronic Design Contest, Tsinghua University.

- Top 8 in about 100 teams

Oct.2014 **Third Prizes**, Beijing region of Chinese Mathematics Competitions(CMC).

Apr.2014 **Third Prizes**, 32nd Challenge Cup, Tsinghua University.

- Entries name: Machine proof of divisibility

Honors

Sep.2016 **Mitsubishi UFJ Scholarship**, Tsinghua -Tokyo-Mitsubishi UFJ.

Sep.2016 **Tsinghua Xuetaang Scholarship**, Tsinghua University.

Sep.2015 **Guanghua Scholarship**, Tsinghua-Guanghua.

Sep.2015 **Social Work Scholarship**, Tsinghua-Baidu.

Sep.2015 **Tsinghua Xuetaang Scholarship**, Tsinghua University.

Sep.2014 **Second-Level Social Work Scholarship**, Tsinghua-Baidu.

Sep.2014 **Tsinghua Xuetaang Scholarship**, Tsinghua University.

Sep.2013 **Tsinghua Xuetaang Scholarship**, Tsinghua University.

Sep.2013 **Second-Level Scholarship for Freshman**, Tsinghua University.

Service

Oct.2016– **President**, Student Union of Yao Class.

Oct.2015– **Vice President**, Student Union of Yao Class.

Oct.2016

Sep.2014– **Leader of Study and Technology Group**, Student Union of Yao Class.

Oct.2015