

JUNMING KE

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EDUCATION

School of Computer Science and Technology, Shandong University
College of Science, Zhejiang University of Technology

September 2016 - Present
September 2012 - July 2016

TECHNICAL STRENGTHS

Computer Languages	JavaScript, MATLAB, GO, Python
Software & Tools	HTML, LaTeX, Illustrator, SQL

EXPERIENCE

Zhejiang University CAD&CG State Key Laboratory VAG Group May 2015 - August 2016
Internship Research

- 2015.04-2016.02: Crime forecast based on the urban data
- 2016.02-2016.04: Visualization of the urban data mining
- 2016.04-2016.08: Visual analysis of network information security
- Programmed with MATLAB, JavaScript, Java, HTML and CSS.

Sansec Inc., China
Blockchain Application

May 2017 - October 2017

- Established a web system that supports the data mall application based on the blockchain.
- Configured the application programming interface based on Fabric(original version) and Ethereum(latest version).

Singapore University of Technology and Design(In progress)
Applied Cryptography

January 2019 - May 2019

- In process of applying for Training Employment Pass(TEP) now.
- Under supervisor Prof.Jianying Zhou, Conducting cyber-physical system security and blockchain research.

ACADEMIC PUBLICATION

Lu, J., Chen, W., Ma, Y., **Ke, J.**, Li, Z., & Zhang, F. (2017). Recent progress and trends in predictive visual analytics. *Frontiers of Computer Science*, 11(2), 192-207.

WANG Hao, SONG Xiangfu, **KE Junming**, et al. Blockchain and Privacy Preserving Mechanisms in Cryptocurrency[J]. *Netinfo Security*,2017(7):32-39. (Chinese)

Zhao Shengnan, Jiang Han, Wei Xiaochao, **KE Junming**, & Zhao Minghao. (2017). An Efficient Single ServerAided koutofn Oblivious Transfer Protocol. *Journal of Computer Research and Development*, 54(10), 2215-2223. (Chinese)

Junming Ke, Han Jiang, Xiangfu Song, Shengnan Zhao, Hao Wang, Qiuliang Xu. Analysis on the Block Reward of Fork After Withholding, 12th International Conference on Network and System Security 2018.

Liu Yiran, **Ke Junming**, Jiang Han, Song Xiangfu. Improvement of the PoS Consensus Mechanism in Blockchain Based on Shapley Value. *Journal of Computer Research and Development*.(Accepted, Chinese)

AWARDS & HONORS

Names

School Scholarship(twice)
Annual Appraisal of Advanced Individuals
Mathematical Contest in Modeling Meritorious Winner
School Scholarship(twice)

Organizations

Shandong University
Shandong University
COMAP(USA)
Zhejiang University of Technology

PERSONAL STATEMENT

I will graduate from school of computer science and technology, Shandong University in July, 2019, getting my master degree. Before that, I will visit Singapore University of Technology and Design from January, 2019 to May, 2019.

I was major in Information and Computer Science in college, and learned the math foundation courses such as algebra and mathematical analysis. In junior year, I participated in Mathematical Contest in Modeling, which was organized by the Consortium for Mathematics and Its Application, and I was given a Meritorious Winner award for the paper Eradicating the Ebola. After that, recommended by teacher. Kai Zhou and Prof. Fan Zhang, I visited and studied in Computer Aided Design & Computer Graph state key laboratory Visual Analyze Group (VAG), Zhejiang University for one and a half year, under supervisor Prof. Wei Chen.

I participated three projects in VAG, such as crime forecast based on the urban data project. This is a data mining project, we analyzed urban data, utilizing economic model and forecasting a given group of human beings behavior. My task was selecting data from Oracle, data selection, data cleaning and programming with SQL. In VAG, I have published paper Recent Progress and Trends in Predictive Visual Analytics with my fellow classmates. This paper surveyed current progress and trends in predictive visual analytics, and identified the common framework in which predictive visual analytics systems operate, and we also developed a summarization of the predictive analytics workflow. I mainly responsible for the work of literature collection and writing.

I was recommended for admission to the School of Computer Science and Technology, Shandong University, under supervisor Prof. Qiuliang Xu. My research focus on Blockchain and Applied Cryptography, and I have accomplished some research about foundation crypto theory with my classmates, such as improving Oblivious Transmission, surveying blockchain security, improving Proof-of-Stake consensus mechanism in blockchain based on Shapley value and so on. I am also in charge of the work about the Analysis on the Block Reward of FAW. This paper analyses the block reward of the Block Withholding attack and the Fork After Withholding attack. And then based on these rewards, we designed a method to find the FAW attacker. Our countermeasure is simple but efficient, and easy to implement, which has played an important role in maintaining blockchain security.

MISCELLANY

Speaker at the 2018 International Conference on Network and System Security held by the Hong Kong Polytechnic University

Vice Minister of Graduate Student Union, Shandong University

A member of Organizing Committee of Chinese Association for Cryptologic Research conference in October, 2017

A member of colour guard, Zhejiang University of Technology