Zhiyi **Zhang**

PHD CANDIDATE · UCLA

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Summary

Current UCLA PhD candidate in computer science at UCLA. Experience specializing in Network Security, Internet of Things, and Information-centric Network. Skills in network protocol designing and security system building. Interested in devising a better problem-solving method for challenging tasks, and learning new technologies and tools.

Education

UCLA   *Los Angeles, CA, U.S.A*
PH.D. IN COMPUTER SCIENCE   *Sep. 2016 - Exp. Jun. 2021*
- Supervised by Professor Lixia Zhang in the Internet Research Laboratory.
- Major fields: Network Security, Internet of Things, Information-centric Network
- TA UCLA Master Course: Internet Architecture and Protocols
- TA UCLA Undergraduate Course: Software Construction

Nankai Univ.   *Tianjin, China*
BACHELOR OF ENGINEERING IN SOFTWARE ENGINEERING   *Sep. 2012 - Jun. 2016*
- Earned GPA of 3.8/4.0

Experience

Internet Research Laboratory, UCLA   *Los Angeles, CA, U.S.A*
DOCTORAL RESEARCHER   *Sep. 2016 - PRESENT*
- Contributing to the effort of Named Data Networking (NDN) of **Internet of Things (IoT)**.
- Designing and implementing **Blockchain-based distributed ledger system** for Real-world Solar System.
- Designed and implemented **DDoS defense** system over NDN.
- Designed and implemented automatic **certificate management** system over NDN.
- Designed and implemented **access control scheme** with RSA and Attribute-based Encryption.

AIS team, Alibaba Group   *Bellevue, WA, U.S.A*
RESEARCH&DEVELOPMENT INTERNSHIP   *Jun. 2017 - Sep. 2017*
- Building **high-performance user-mode network** stack by adjusting **QUIC** to work with kernel bypass **(DPDK)**
- Evaluation of QUIC+DPDK's performance compared with TCP+TLS+HTTP/2 and DPDK+TCP+TLS+HTTP/2
- Explored new congestion control protocol (BBR) in data center network scenario

Data and Knowledge Engineering Laboratory, Nankai Univ.   *Tianjin, China*
UNDERGRADUATE RESEARCHER   *Jul. 2014 - May. 2015*
- Implemented linking system matching plaintext word to Wikipedia pages in Java.
- Developed entity disambiguation system in Java.

Honors & Awards

2018	**ACM ICN 2018 Best Poster Award**, Title: NDNoT: A Framework for Named Data Network of Things	*Boston, U.S.A.*
2016	**Outstanding Graduate Student Award**, 4 out of 99 in Software Engineering Department, Nankai University	*Tianjin, China*
2015	**The National Scholarship of China**, 0.2% among undergraduates nationwide, The Chinese Government	*Tianjin, China*
2015	**CSST Scholarship**, The China Scholarship Council and UCLA	*Los Angeles, U.S.A*
2015	**Honorable Mention Award**, Mathematical Contest in Modeling	*Tianjin, China*

Skills / Strengths

Programming languages	C; C++; Python; Java; MatLab
Professional	Network Security; Internet of Things; Information-centric Network; Kernel Bypass; QUIC
Tools	Git; Shell; LaTeX; Emacs; UML