TIANYUAN LIU

1620 Melrose Park CT APT 624, Urbana, IL, 61801

(217) 979-0502 ⋄ yuralty@gmail.com ⋄ https://yuralty.github.io

EDUCATION

University of Illinois at Urbana-Champaign   Expected graduateing: May 2020
Ph.D. student in Computer Science   **Advisor:** Klara Narhstedt

- Research interest: Networking systems, network security
- Ongoing project: Cyber Resilient Energy Delivery Consortium (CREDC)

Shanghai Jiao Tong University   Graduated: July 2015
B.S. in Computer Science, **IEEE Honor Class**[1]

- Major GPA: 90.7/100   3.85/4.0
- Overall GPA: 90.8/100   3.85/4.0
- Rank: 2/98 Overall

INTERNSHIP

Software Engineering Intern at Google
Google Communication Team   *May 2016 - August 2016*

· Designed and implemented TLS Prober and TLS Auditor, an internal tool to analyze TLS connections for Google Telephony applications.

Research & Development Intern at VMWare Shanghai
VSAN Health Team   *March 2015 - July 2015*

· Fixed bugs and implemented features of VSAN Health Check Plugin in Python, which checks all aspects of a Virtual SAN configuration.

SKILLS

Computer Languages	Python, C++ (experienced), JAVA (desktop/Android), Matlab/Octave, LaTeX (proficient), Ruby, HTML, JavaScript, YANG (basic)
Tools	Linux, LabVIEW, NS2, Minninet, Adobe Illustrator/Photoshop.

PUBLICATIONS

· Yiran Zhao, Yang Zhang, Tuo yu, **Tianyuan Liu**, Xinbing Wang, "*CityDrive: A Map-Generating and Speed-Optimizing Driving System*", in Proc. of IEEE INFOCOM, 2014. (**Published**)
· **Tianyuan Liu**, Ruotian Luo, Yang Zhang, Feng Yang, Xiaoying Gan, Xiaohua Tian, Xinbing Wang, "*Intellectual Taxi Assignment System*", CN103680128A, 2014.03.26 (**Patent Published**)
· Tuo yu, Liqin Zhang, **Tianyuan Liu**, Xiaoying Gan, Xiaohua Tian, Xinbing Wang, "*Crowdsoursing Based Taxi-sharing Solution*", CN104077912A, 2014.10.01 (**Patent Published**)

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[1] http://english.seiee.sjtu.edu.cn/english/info/8338.htm

RESEARCH/PROJECT EXPERIENCE

Research: Resilient and Scalable data collection in Energy Distribution Networks
MONET, UIUC
Advisor: Klara Nahrstedt   *January 2016 -*

· Designed resilient data collection protocol in EDN.
· Optimized tree construction by Integer Linear Programming (ILP).
· Evaluated protocol on real world dataset.

Course Project: Fast Data Processing Platform   UIUC
Advisor: Indranil Gupta   *August 2015 - December 2015*

· Designed Crane, a Storm-like data processing platform.
· Implemented Crane components including membership protocol, file system and Crane core in C++ from scratch.
· Crane outperforms Storm by 13x.
· Got the best MP award from course.

Course Project: Distributed Fully Homomorphic Encryption (FHE)   UIUC
Advisor: Manoj M. Prabhakaran   *January 2016 - May 2016*

· Designed and implemented a distributed fully homomorphic encryption scheme.
· Evaluated the system, which achieves more than 2x execution time compared with normal FHE schemes.

SELECTED HONORS AND AWARDS

· National Scholarship (Top 4%), Shanghai Jiao Tong University, 2011-2012 & 2013-2014.
· Wilmar Scholarship (Top 4%), Shanghai Jiao Tong University, 2012-2013.
· **First Prize** in 2013 National College Student Mathematical Contest In Modeling.
· **Meritorious Winner** in 2014 Interdisciplinary Contest In Modeling.

EXTRA-CURRICULAR ACTIVITIES

· **Summer Exchange** in Intensive English Language Program at Yale university, 2013.
· **Chairman of Propaganda Dept.** for Student International Communication Association, 2012-2013.
· **Volunteer** for Shanghai International Marathon, 2011-2014.
· **Photographer** for Military Training at Shanghai Jiao Tong University, 2012.