TIANYUAN LIU

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EDUCATION

University of Illinois at Urbana-Champaign　　　　Expected graduateing: May 2020
1st year Ph.D. in Computer Science　　　　　　　　　　**Advisor:** Klara Narhstedt

- Research interest: Networking systems, network security

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

Internship of Research & Development 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, JAVA (desktop/Android) (experienced),
	C++, Matlab/Octave, LaTeX (proficient),
	Ruby, HTML, JavaScript, YANG (basic)
Tools	Linux, LabVIEW, NS2, Minninet, Adobe Illustrator/Photoshop.

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.

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: Information Popularity v.s. Coverage in Social Network   IWCT, SJTU
Advisor: Xinbing Wang   *September 2013 - September 2014*

· Investigated and model the information diffusion process in online social network (OSN).
· Theoretically proved the correlation between popularity and coverage in OSN.
· Validated theoretical results and ran simulations on realistic OSN topology.

Research: CloudTaxiNet   IWCT, SJTU
Advisor: Xinbing Wang   *January 2013 - May 2013*

· Designed *CloudTaxiNet*, a taxi dispatching system to help taxi-passenger matching.
· Proposed *CabMatch*, a bipartite graph based algorithm to match taxi-passenger pairs.
· Proposed *CabShare*, an algorithm enabling passengers with similar routes to share a taxi.
· Implemented the system on Android platform.

Research: CityDrive   IWCT, SJTU
Advisor: Xinbing Wang   *March 2013 - July 2013*

· Designed *CityDrive*, a vehicle-mounted system to provide speed suggestion.
· Implemented the algorithm to estimate the duration of traffic light.

Research: Controller Placement Problem   Dept. of Computer Science, SJTU
Advisor: Weijia Jia   *March 2014 - September 2014*

· Investigated the influence of controller placement on network performance.
· Proposed a novel model considering three metrics: latency, reliability and load balance.
· Designed algorithms to provide suboptimal solution.
· Validated the model and algorithms in realistic network topologies.

Research Intern: Application-Layer Traffic Optimization (ALTO) LANS, Yale University
Advisor: Y. Richard Yang   *June 2013 - August 2013*

· Designed the topology abstraction for the ALTO protocol.
· Modeled the ALTO protocol in YANG language.

Project: Portable Raman Spectroscopy Instrumentation   Dept. of Instrument and
Engineering
Advisor: Meizhen Huang   *August 2014 - now*

· Implemented the software for the portable Raman Spectroscopy Instrumentation, a project sponsored by the National Special Fund for the Development of Major Research Equipment and Instruments.

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.