

## Kun Qian

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CONTACT INFORMATION	Department of Electrical & Computer Engineering University of California San Diego 9500 Gilman Drive, La Jolla, CA 92093	Email: <a href="mailto:qiank10@gmail.com">qiank10@gmail.com</a> Homepage: <a href="https://kunqian.info">https://kunqian.info</a>
RESEARCH INTERESTS	Ubiquitous and Mobile Computing, Human-Oriented Wireless Sensing, Radar-Based Autonomous Sensing, Covert Channel Communication, Indoor Localization.	
EDUCATION	<b>Tsinghua University</b> , Beijing, China  Ph.D., Software Engineering, January 2019 <ul style="list-style-type: none"><li>• Advisors: Yunhao Liu, Ph.D.</li><li>• GPA: 96.2/100, Rank: 1/140</li></ul> B.S., Computer Software, July 2014 <ul style="list-style-type: none"><li>• GPA: 93.4/100, Rank: 1/60</li></ul>	
REFEREED CONFERENCE & WORKSHOP PUBLICATIONS	<ol style="list-style-type: none"><li>1. <b>Kun Qian</b>, Shilin Zhu, Xinyu Zhang, Li Erran Li, “Robust Multimodal Vehicle Detection in Foggy Weather Using Complementary Lidar and Radar Signals”, IEEE CVPR, 2021.</li><li>2. <b>Kun Qian</b>, Zhaoyuan He, Xinyu Zhang, “3D Point Cloud Generation with Millimeter-Wave Radar”, ACM IMWUT, 2021.</li><li>3. <b>Kun Qian</b>, Yumeng Lu, Zheng Yang, Kai Zhang, Kehong Huang, Xinjun Cai, Chenshu Wu, Yunhao Liu, “Hidden Screen-Camera Communication on an Invisible and Inaudible Dual Channel”, USENIX NSDI, 2021.</li><li>4. Renjie Zhao, Timothy Woodford, Teng Wei, <b>Kun Qian</b>, Xinyu Zhang, “M-Cube: a millimeter-wave massive MIMO software radio”, ACM MobiCom, 2020. (Best Paper Award, 2 out of 384 submissions)</li><li>5. Jingao Xu, Hengjie Chen, <b>Kun Qian</b>, Erqun Dong, Min Sun, Chenshu Wu, Li Zhang, Zheng Yang, “iVR: Integrated Vision and Radio Localization with Zero Human Effort”, ACM IMWUT, 2019.</li><li>6. Yue Zheng, Yi Zhang, <b>Kun Qian</b>, Guidong Zhang, Yunhao Liu, Chenshu Wu, Zheng Yang, “Zero-Effort Cross-Domain Gesture Recognition with Wi-Fi”, ACM MobiSys, 2019.</li><li>7. <b>Kun Qian</b>, Chenshu Wu, Yi Zhang, Guidong Zhang, Zheng Yang, Yunhao Liu, “Widar2.0: Passive Human Tracking with a Single Wi-Fi Link”, ACM MobiSys, 2018.</li><li>8. <b>Kun Qian</b>, Chenshu Wu, Fu Xiao, Yue Zheng, Yi Zhang, “Acousticcardiogram: Monitoring Heartbeats using Acoustic Signals on Smart Devices”, IEEE INFOCOM, 2018.</li><li>9. <b>Kun Qian</b>, Chenshu Wu, Zheng Yang, Yunhao Liu, Kyle Jamieson, “Widar: Decimeter-Level Passive Tracking via Velocity Monitoring with Commodity Wi-Fi”, ACM MobiHoc, 2017.</li><li>10. <b>Kun Qian</b>, Chenshu Wu, Zimu Zhou, Yue Zheng, Zheng Yang, Yunhao Liu, “Inferring Motion Direction using Commodity Wi-Fi for Interactive Exergames”, ACM CHI, 2017. (Honorable Mention Award, top 5% of submissions)</li></ol>	

11. **Kun Qian**, Chenshu Wu, Zheng Yang, Chaofan Yang, Yunhao Liu, "Decimeter Level Passive Tracking with WiFi", ACM HotWireless, Oct 03, 2016.
12. **Kun Qian**, Chenshu Wu, Zheng Yang, Zimu Zhou, Xu Wang, Yunhao Liu, "Tuning by Turning: Enabling Phased Array Signal Processing for WiFi with Inertial Sensors", IEEE INFOCOM, 2016.
13. Chenshu Wu, Zheng Yang, Zimu Zhou, **Kun Qian**, Yunhao Liu, Mingyan Liu, "PhaseU: Real-time LOS Identification with WiFi", IEEE INFOCOM, 2015.
14. **Kun Qian**, Chenshu Wu, Zheng Yang, Yunhao Liu, Zimu Zhou, "PADS: Passive Detection of Moving Targets with Dynamic Speed using PHY Layer Information", IEEE ICPADS, 2014. (Best Paper Candidate, 4 out of 323)

REFEREED  
JOURNAL  
PUBLICATIONS

1. Jing Chu, Xu Wang, **Kun Qian**, Lina Yao, Fu Xiao, Jianbo Li, Zheng Yang, "Passenger demand prediction with cellular footprints", IEEE TMC, 2020.
2. **Kun Qian**, Chenshu Wu, Zheng Yang, Zimu Zhou, Xu Wang, Yunhao Liu, "Enabling Phased Array Signal Processing for Mobile WiFi Devices", IEEE TMC, 17(8), 2018.
3. **Kun Qian**, Chenshu Wu, Zheng Yang, Yunhao Liu, Fugui He, Tianzhang Xing, "Enabling Contactless Detection of Moving Humans with Dynamic Speeds using CSI", ACM TECS, 17(2), 2018.

RESEARCH  
EXPERIENCE

**Visiting Graduate** April 2018 – September 2018  
Department of Electrical and Computer Engineering,  
University of California San Diego  
Supervisor: Xinyu Zhang, Ph.D.  
Research Content: MMWave Sensing and Communication.

**Visiting Student** July 2013 – August 2013  
Information Science Institute,  
University of South California  
Supervisor: John Heidemann, Ph.D.  
Research Content: Measurement of Network Traffic Source.

**Research Assistant** February 2015 – January 2019  
Institute of Trustworthy Networks and Systems,  
Tsinghua University  
Supervisor: Yunhao Liu, Ph.D. and Zheng Yang, Ph.D.

TEACHING  
EXPERIENCE

**Teaching Assistant** Fall 2014, 2015, 2016  
34100294 - Computer And Network Architecture (1)  
Instructor: Yunhao Liu, Ph.D. and Zheng Yang, Ph.D.  
School of Software,  
Tsinghua University

AWARDS

Student Awards — Tsinghua University

- Beijing Outstanding Graduate (Ph.D.) 2018
- National Scholarship 2018,2017,2016,2015,2012
- Future Scholarship Award of Tsinghua University 2014
- Outstanding Graduate of Tsinghua University 2014
- Beijing Outstanding Graduate (B.S.) 2014
- Outstanding Graduate Thesis of Tsinghua University 2014
- "December 9th" Scholarship 2013