Zhao Tian

📍 Bay Area, California   🔗 zhaotian.me

Education

Dartmouth College *Sept 2014 – Sept 2019*
Ph.D. in Computer Science
- Research area: wireless networking, mobile systems, visible light communication/sensing

Peking University *Sept 2009 – July 2013*
B.S. in Computer Science
- Research area: reconfigurable computing, FPGA architecture and tool chain

Experience

Software Engineer *Mountain View, CA*
Google *Sept 2019 – Present*
- Tech lead of secure networking backend for multiple products: VPN by Google, Google Fi Virtual Carrier Network (VCN), and Google Fi VPN
- Led the design and implementation of a distributed VPN backend from scratch
- Google Fi session continuity. Algorithms for network switching between Wi-Fi and cellular

Software Engineer Intern *Kirkland, WA*
Google *Jun 2018 – Sept 2019*
- Designed a more energy-efficient heartbeating algorithm for Google Firebase Cloud Messaging (FCM)

Research Intern *Cambridge, UK*
Nokia Bell Labs *May 2017 – Aug 2017*
- Developed a testbed to detect human presence with off-the-shelf Wi-Fi NICs

Awards

Google Tech Impact Award 2022
Virtual Carrier Networks

NSDI Best Paper Award 2020
AmphiLight: Direct Air-Water Communication with Laser Light

Skills

Languages: C/C++ (proficient), Go (proficient), Java, Verilog

Expertise: Networking, distributed system, mobile system, FPGA

Selected Publications

AmphiLight: Direct Air-Water Communication with Laser Light NSDI 2020
C. J. Carver[†], *Z. Tian*[†], H. Zhang, K. M. Odame, A. Q. Li, X. Zhou († co-primary authors)

Augmenting Indoor Inertial Tracking with Polarized Light MobiSys 2018
Z. Tian[†], Y.-L. Wei[†], W.-N. Chang, X. Xiong, C. Zheng, H.-M. Tsai, K. Lin, X. Zhou († co-primary authors)

Measuring Interaction Proxemics with Wearable Light Tags IMWUT 2018
A. Montanari[†], *Z. Tian*[†], E. Francu, B. Lucas, B. Jones, X. Zhou, and C. Mascolo († co-primary authors)

The DarkLight Rises: Visible Light Communication in the Dark MobiCom 2016
Z. Tian, K. Wright, and X. Zhou (Best Video Award)

Human Sensing Using Visible Light Communication MobiCom 2015
T. Li, C. An, *Z. Tian*, A. Campbell, and X. Zhou (Best Video Award)