

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 2018

- 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

Visiting Researcher

Cambridge, UK

University of Cambridge

Oct 2016 – Dec 2016

- Developed an infrared-equipped badge to sense interpersonal interactions

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

Z. Tian, K. Wright, and X. Zhou (Best Video Award)

MobiCom 2016

Human Sensing Using Visible Light Communication

T. Li, C. An, Z. Tian, A. Campbell, and X. Zhou (Best Video Award)

MobiCom 2015