

# CHAO XU

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## EDUCATION

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**Fudan University** Shanghai, China  
Research Assistant June 2017 – Present

- Advisor: Prof. Yang Chen; Co-advisor: Prof. Xin Wang
- Full-time in Mobile Systems and Networking Group

**Bachelor with Honor in School of Information Science and Technology** Sep. 2013 – June 2017

- GPA: 3.61/4.00
- Selected awards: Third Prize for Outstanding Students (2014, 2015), Sunny Healthy Stars (top 1% of 2000 Students, awarded to those with outstanding performance in University Physical Test)
- Selected to Elite Electrical Engineer Program (top 5% of 500 students, on the basis of outstanding research performance)

**National University of Singapore** Singapore  
Exchange Student Jan. 2016 – May 2016

- Earned 12 course credits, GPA: 4.0/5.0
- Joined and researched in Professor Rui Zhang's Communications Research Group

**University of Hertfordshire** United Kingdom  
Summer School Student Aug. 2015

- Completed Practical Skills Training Course for Fudan University Elite Engineering Students

## PUBLICATIONS

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1. Q. Gong, X. Yu, C. Xu, Z. Guo, Y. Chen, X. Wang "Leveraging the Potential of Social Hub Services", December 12, 2017, *CoNEXT'17 Student Workshop*

## RESEARCH EXPERIENCE

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**Fudan University (Department of Computer Science)** Shanghai, China  
Research Assistant to Professor Yang Chen Nov. 2016 – Present

### Understanding the User Behavior in Online Social Networks

- Using Matrix Factorization and Clustering algorithms to classify users and shops on Dianping website and to study their distribution and characteristics, aiming to study urban planning and recommendation systems
- Leveraging potential of social hub services (SHS). Based on cross-links, an important function of SHS, aggregating users' profiles on several websites for further analysis and investigation into privacy issues. Cross-links also provide outstanding method for influential prediction, study of multi-layer social networks and further understanding of comprehensive influence across assorted online social networks

**Fudan University (Department of Communications)** Shanghai, China  
Research Assistant to Professor Yu Zhu Sep. 2015 – Nov. 2016

### Hybrid Beamforming Design for Lens MIMO

- Graduation thesis; Studied new lens-based MIMO system and used hybrid beamforming architecture to achieve capacity-optimal performance with low complexity and cost

### Non-Linear Energy Harvesting Model Characterization

- Employed mathematical and physical methods to study general relationship between efficiency and losses in microwave energy conversion circuits and attempted to build representative model for power characterization

**National University of Singapore (Department of ECE)** Singapore  
Research Assistant to Professor Rui Zhang, Associate Head Jan. 2016 – May 2016

### Waveform Design

- Aimed to find trade-off between efficiency and subcarriers in energy harvesting system to optimize waveform design
- From specific perspective in frequency domain, largely simplified the study model for waveform design issues in simultaneous wireless information and power transfer(SWIPT) system

**Fudan University (Department of Electrical Engineering)**

Denghui Academic Program

Shanghai, China

Sep. 2015 – Jan. 2017

**Portable Oscilloscope Development (Fudan's Undergraduate Research Opportunities Program)**

- Designed a portable device functioning as oscilloscope and voltage source based on development of FPGA
- Products will be used in laboratory for some classes on trial basis. Program has been taken over by another undergraduate group after my graduation for further development of both research and business

**University of Hertfordshire (Department of Electrical Engineering)**

Practical Skills Training Course for Fudan University Elite Engineering Students

Hertfordshire, UK

Aug. 2015

**Intelligent Home Control System Based on Kinect (Mini project)**

- Setting smart home and corresponding gesture control based on C# to manipulate various electrical appliances on Microsoft Smart Home Server

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**EXTRACURRICULAR ACTIVITIES**

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**School Overwatch team**

Team leader, Fudan E-sports Club

Fudan University

Sep. 2016 – June 2017

**Dream Ferry workstation for studying overseas**

Co-founder

Fudan University

May 2014 – Sep. 2015

- Participated in creation of association, organized events to facilitate applying for summer schools abroad

**Teaching Monks & Community Development**

LEO Project Foundation

Sri Lanka

May 2016

- Volunteer for teaching Monks and turtle conservation program in Sri Lanka

**Career & Leadership Development Program**

Coach, CEO Global

Fudan University

Sep. 2015 – Jan. 2016

- Served as Coach of "The Way To Success" Career & Leadership Development Program
- Lead team to organize and complete volunteer project

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**ADDITIONAL INFORMATION**

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**Languages**

- Chinese: Native
- English: TOEFL 99, GRE V150+Q168+3.0

**Interests**

- International travel: visited six countries
- Extreme sports: Scuba diving, Parachuting

**Computer and Language Skills**

- Coding: Matlab, Python, C, C++, Verilog, LaTeX
- Software: Cadence, LTspice