DONGXIN LIU

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No.800, Dongchuan RD., Shanghai, P.R. China, 200240

EDUCATION

Shanghai Jiao Tong University

M.S. in Computer Science: advisor Fan Wu. *September 2014 - Present*
- Major GPA: 2.84/3.3 Rank: 2/124

B.S. in Computer Science *September 2010 - June 2014*
- Major GPA: 89.1/100 Rank: 6/121

PUBLICATIONS

[1] **Dongxin Liu**, Zhihao Wu, Fan Wu, Yuan Zhang, and Guihai Chen, "FIWEX: Compressive Sensing Based Cost-Efficient Indoor White Space Exploration", Proceedings of the *16th ACM International Symposium on Mobile Ad Hoc Networking and Computing (**MobiHoc**)*, Hangzhou, China, June, 2015. [**Acceptance rate:** 14.8%] [**PDF]**

[2] **Dongxin Liu**, Fan Wu, Linghe Kong, Shaojie Tang, Yuan Luo, and Guihai Chen, "Training-Free Indoor White Space Exploration", *To appear: IEEE **JSAC** Special Issue on Spectrum Sharing and Aggregation for Future Wireless Networks*. [**Acceptance rate:** 23.0%]

[3] **Dongxin Liu**, Zhihao Wu, Fan Wu, Yuan Zhang, and Guihai Chen, "Cost-Efficient Indoor White Space Exploration Through Compressive Sensing", *IEEE/ACM Transactions on Networking (**ToN**)* (Under Review).

[4] **Dongxin Liu**, Tianshu Liu, Xiaofeng Gao, Fan wu, and Shaojie Tang,"Towards Fine-Grained Indoor White Space Estimation", Proceedings of the *36th IEEE International Conference on Computer Communications (**INFOCOM**)*, Atlanta, GA, May, 2017 (Submitted).

EXPERIENCE

Indoor White Space Measurement *April 2014 - November 2015*
- Measured TV spectrums of different buildings in Shanghai and Nanjing.
- Deployed 20+ USRPs in every building, and synchronously recorded RSSIs of 45 TV channels.
- Studied the correlations between different locations and channels.

Cost-efficient Indoor White Space Exploration System *April 2014 - December 2014*
- Combined indoor white space exploration with compressive sensing.
- Designed FIWEX: a cost-eFficient Indoor White space EXploration system.
- FIWEX identified indoor white spaces with high accuracy.

Training-free Indoor White Space Exploration System *January 2015 - July 2015*
- Combined indoor white space exploration with Bayesian compressive sensing and differential entropy.
- Designed TIME: a training-Free Indoor white space exploration Mechanism.
- TIME achieved competitive performance to the state-of-the-art training-based mechanism.

Fine-grained Indoor White Space Exploration System *August 2015 - April 2016*
- Combined indoor white space exploration with Gaussian process and mutual information.
- Designed FRISE: a Fine-gRained Indoor white Space Estimation system.
- FRISE identified white space availabilities of the whole indoor environment instead of a set of selected locations.

Mobile Indoor White Space Exploration System *May 2016 - Present*

- Combined indoor white space exploration with mobile sensors.
- Designed a mobile platform to automatically measure indoor TV spectrums.
- Designed an algorithm of mobile sensor scheduling.

SCHOLARSHIPS & AWARDS

National Scholarship, China (2%)	*2016*
National Scholarship, China (2%)	*2015*
Outstanding Graduates Awards, SJTU	*2014*
Academic Excellence Scholarship (Second-Class) of SJTU (Top 5%)	*2013*
Academic Excellence Scholarship (Third-Class) of SJTU (Top 10%)	*2012*
Academic Excellence Scholarship (Second-Class) of SJTU (Top 5%)	*2011*

PROFICIENCIES

Programming Language

- Skilled at C, C++, MATLAB, Python; Average in Java and html.

Math tool

- Proficient in Compressive sensing, Gaussian process, and function optimization.

System

- Skilled at USRP-based system implementation.

EXTRACURRICULAR ACTIVITIES

Graduate Student Association, *Core Member* 2015-2016

- Organized the alumni & freshman meeting of SJTU.
- Organized the Doctoral Consortium of SJTU.

Youth Volunteers Association, *Volunteer* *2010-2015*

- Volunteered at Library of SJTU.
- Volunteered at Dong Li International Marathon.
- Volunteered at Shanghai International Marathon, twice.

Quality Development Association, *Vice President* 2011-2012

- Organized the annual social practice activities for whole school.

Athletic Association, *Core Member* *2010-2011*

- Organized sports meet for new students.
- Organized soccer and basketball matches for all students.