

FANG-ZHOU JIANG

PERSONAL INFORMATION



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BIO

I am a Ph.D student from UNSW (supervised by Prof. Aruna Seneviratne & Dr. Kanchana Thilakarathn), and work on projects at Cyber Physical System Research Program in Data61, CSIRO. In particular, I am a computer science student with strong analytic skills, solid engineering background, and experience in handling and analyzing large datasets using advance data analysis and data mining tools. I also have experience in applying machine/deep learning models on real-world problems, and personally interested in quantitative analysis on finance/investing as well as related modeling. My PhD is in the area of improving mobile system performance exploiting human behavior and context.

- I received B.E. with First Class Honours in Telecommunications from the USYD, Australia in 2014.
 - My thesis was done externally and supported by Network Research Group in National ICT Australia (NICTA).
- Rich Experience as Research Intern both in academic and industry labs;
 - Telefonica Research and Development (Sep-Dec, 2017) in Spain. (advised by Dr. Alessandro Finamore)
 - 6 months (Jan-July, 2016) at National Institute of Informatics (NII), Japan (advised by Prof. Yusheng Ji. Two data-driven projects)
 - National ICT Australia (Oct 2013-Feb 2015), Australia. Worked on 3 Projects yielding 4 Papers.
- I have broad research interests include but not limited to;
 - Mobile Content Distribution, Mobile Computing
 - Applied Data Mining and Machine Learning
 - Data-Driven system performance & User Modeling (Focused on Spatial-Temporal data and User behaviors)
- I am a TPC member of Ubicomm'17, ICSNC'17, ICT-DM'17 and ISC'18. I have been reviewer for papers in top tier conferences and journals, i.e. IMC, TMM, TMC, Internet Computing, ICC, PIMRC and PAM.

Outside of research, I work at UNSW Innovation in collaboration with Business Development Managers on assessing new technologies and managing the commercialization process. Typically includes;

- Patent & Technical Review
- Early Commercial Assessment (Commercial viability of new inventions)
- Marketing Assessments and identifying potential licensees

WORK EXPERIENCE

Feb,15–pst Graduate Researcher,
DATA61 — Sydney

Data61, CSIRO

Data61 is the largest data innovation group in Australia bringing together CSIRO Digital Productivity team and National ICT Australia (NICTA). As a NICTA/Data61 enhanced PhD, my work is in the area of improving mobile system performance exploiting human behavior and context.

NICTA/DATA61 · <http://www.csiro.au/en/Research/D61>

Apr,17–pst Business Development Intern,
UNSW INNOVATIONS — Sydney

UNSW
Innovations

UNSW Innovations is the technology transfer and innovation office of UNSW Sydney. I work in collaboration with Business Development Managers on assessing new technologies and managing the commercialization process.
UNSW INNOVATIONS · <http://www.innovations.unsw.edu.au/>

Sep–Dec, 17 Research Intern,
TELEFONICA RESEARCH AND DEVELOPMENT — Barcelona

Telefonica R&D

I worked with Dr. Alessandro Finamore on mining and modeling mobility behaviors of large-scale mobile users.
TELEFONICA · <http://www.tid.es/>

Jan–Jul, 2016 Research Intern,
NATIONAL INSTITUTE OF INFORMATICS — Tokyo

NII

I am 1 of the 2 recipients of National Institute of Informatics(NII) Intern Award under MOU program. In specific, I worked on two data-driven projects in the area of mobile content distribution and disaster preparation and response.
NII · <http://www.nii.ac.jp/en/>

2013–2015 Summer Scholar & Graduate Researcher,
NICTA — Sydney

NICTA

NICTA (National ICT Australia) is Australia's Information and Communications Technology Research Centre of Excellence. I worked on multiple projects of NICTA's interests, leading to several first/co-authored paper publications.
NICTA/DATA61 · <https://www.nicta.com.au>

EDUCATION

2015–Present The University of New South Wales, Australia

*Ph.D in
Telecommunications*

Field of Specialization: *Mobile Computing, Data Mining.*
Supervisor: Prof. ARUNA SENEVIRATNE & Dr. KANCHANA THILAKARATHNA

2011–2014 The University of Sydney, Australia

*B.E in EE &
Telecommunications*

First Class Honors. THESIS WITH NICTA
Supervisors: Prof. ARUNA SENEVIRATNE & A.Prof. RAFAEL CALVO

RELEVANT SKILLS

Languages

PYTHON, OMNET++ (Intermediate), JAVA & C, C++ (Basics)

Operating Systems

UNIX: DEBIAN AND DERIVATIVES, MACOSX, MS WINDOWS, ANDROID (Basics)

Skills

L^AT_EX, RESEARCH, COMMUNICATION, ALGORITHMS, DATA ANALYTICS, DATA MINING, DATA VISUALIZATION, NETWORK ARCHITECTURE/PROTOCOLS, MOBILE SYSTEM OPTIMIZATION, ENERGY EFFICIENCY, APPLIED MACHINE LEARNING, CLOUD COMPUTING

OTHER INFORMATION

Certificates

2012-2015 · High Performance Certificate in 2nd/3rd/4th year Advanced Engineering & Advanced Engineering Certificate (USYD)

2014 · Tutor Training Certificate

2013 · NICTA summer intern Prize winner

*Scholarships
& Awards*

2015-2018 · RTP Ph.D scholarship & NICTA/Data61 enhanced scholarship

2017 · Telefonica R&D PhD fellowship Award.

2017 · Winner of NASSCOM IT Technical Innovation Award.

2016-2017 · National Institute of Informatics(NII) Intern Award (2 recipients)

2015-2016 · UNSW PRSS Travel Grant

2013-2014 · NICTA summer scholarship

Interests Photography · HiFi Music · Traveling · Investing · Coffee

VOLUNTEERING EXPERIENCE

2013 School of Electrical Engineering Mentor Volunteer

2014-2017 ACM CoNEXT'14, IEEE ICC'14, IFIP PERFORMANCE'15, PAM'17

LIST OF PUBLICATIONS

- 2017 *IEEE* DSAA'17
Supercharging Crowd Dynamics Estimation in Disasters via Spatio-Temporal Deep Neural Network,. Authors: F.JIANG, L.Zhong, K. THILAKARATHNA, A. SENEVIRATNE, K.Takano, S.Yamada, and Y.Ji
- 2017 *ACM* IWSC'17 (WWW'17)
Efficient Content Distribution in DOOH Advertising Networks Exploiting Urban Geo-Social Connectivity,. Authors: F.JIANG, K. THILAKARATHNA, M. HASSAN, Y.Ji and A. SENEVIRATNE
- 2017 *Elsevier* Computer Communication
Crowd- Cache: Leveraging on Spatio-Temporal Correlation in Content Popularity for Mobile Networking in Proximity,. Authors: K. THILAKARATHNA, F. JIANG, S. MRABET, M. Ali KAAFAR, A. SENEVIRATNE, G.XIE
- 2016 *IEEE* LCN'16
TransFetch: A Viewing Behavior Driven Video Distribution Framework in Public Transport. Authors: F. JIANG, Z LIU ,K. THILAKARATHNA, Z. LI, Y. Ji ,and A. SENEVIRATNE
- 2016 *IEEE* ICT-DM'16
Spatio-Temporal Data-Driven Analysis of Mobile Network Availability During Natural Disasters. Authors: L.ZHONG, K.TAKANO, F.JIANG, X.WANG, Y.JI and S.YAMADA
- 2016 *IEEE* PerCom'16
uDrop: Pushing Drop-Box to the Edge of Mobile Network. Authors: F. JIANG, K. THILAKARATHNA, S. MRABET, and M. A. KAAFAR
- 2015 *Elsevier* Pervasive Mobile Computing
Type , Talk , or Swype : Characterizing and Comparing Energy Consumption of Mobile Input Modalities. Authors: F. JIANG, E. ZAREPOUR, M. HASSAN, A. SENEVIRATNE, and P. MOHAPATRA
- 2015 *IEEE* LCN'15
SSIDs in the Wild: Extracting Semantic Information from WiFi SSIDs. Authors: S. SENEVIRATNE, F. JIANG, M. CUNCHE, and A. SENEVIRATNE
- 2015 *ACM* MobiCoM CHANTS'15
A Spatio-Temporal Analysis of Mobile Internet Traffic in Public Transportation Systems: *A View of Web Browsing from The Bus*. Authors: F. JIANG, K. THILAKARATHNA, M. A. KAAFAR, F. ROSENBAUM , A. SENEVIRATNE
- 2015 *IEEE* PerCom'15
When to Type, Talk, or Swype: Characterizing Energy Consumption of Mobile

Input Modalities. Authors: F. JIANG, E. ZAREPOUR, M. HASSAN, A. SENEVIRATNE,
and P. MOHAPATRA

ACM MobiSys'14

2014

Demo: Crowd-cache: popular content for free. Authors: K. THILAKARATHNA, F.
JIANG, S. MRABET, M. A. KAAFAR, A. SENEVIRATNE, and P. MOHAPATRA

October 4, 2017