Wenhao Wu

2064 Kemper Hall, University of California, Davis
Davis, CA, 95616
wnhwu@ucdavis.edu
(530) 601-3821

OBJECTIVE

A full time position in Software Engineering / Wireless Communication / Data Engineering.

EDUCATION

Ph.D. Candidate in Electrical and Computer Engineering 2012 - 2017 (expected)
University of California, Davis, Davis, CA
Advisor: Prof. Zhi Ding
Cumulative GPA: 3.95
Minor: Mathematics

B.S. in Electrical Engineering 2008 - 2012
Tsinghua University, Beijing, China

TECHNICAL SKILLS

- Java, Python, C/C++, Matlab/GNU Octave, R.
- Experience with HTML, XML, JavaScript, D3, CSS and SQL.
- Basic Linux system administration.
- Wireless Communication, Signal Processing, Statistical Learning.

EXPERIENCE

Graduate Student Researcher 04/2015
Advisor: Dr. Xiaoguang "Leo" Liu and Prof. Zhi Ding
- Test the feasibility of the design requirement for the RF Microsystems (TA-1A) in DARPA Near Zero Power RF and Sensor Operations (DARPA-BAA-15-14).

Core Engineer Intern 07/2014 - 09/2014
Range Networks, San Francisco, CA. Supervisor: James Peroulas
- Modified the GMSK modulator of openBTS to reduce the phase error and spectral leakage in multi-carrier configurations. Verified with openBTS dev kit and R&S CMD57 digital radio communication tester.
- Designed the LTE PRACH receiver and the corresponding testbed with Octave according to TS 36.211 v12.2.0 and tested according to TS 36.141 v12.4.0.

Teaching Assistant 01/2013 - 04/2013
EEC 180A Digital Systems, Dept. ECE, UC Davis
- Lab sessions, review sessions and grading.

PROJECTS

NYC Taxi Data Pickup Prediction 06/2016
- STA 208 (Statistical Methods in Machine Learning) Course Project
- `https://github.com/huragok/STA208/tree/master/project`.

Inferring the Night Life Hotspot in NYC from Taxi Trip Data 06/2016
- MAT 280 (Mathematical Foundations for Big Data) Course Project
- `https://github.com/huragok/MAT280/tree/master/project`.

A Partial Solution Manual for: The Elements of Statistical Learning 01/2016

- https://github.com/huragok/IDA.

Data Visualization on Community Detection of Facebook Data 06/2015
- STA 242 (Statistical Programming) Course Project.
- https://github.com/huragok/STA242Project.

An Introduction to Algebraic Multigrid 06/2013
- MAT 228C (Numerical Solution of Differential Equations) Course Project.
- https://github.com/huragok/MAT228C.

Wireless Local Area Network Received Signal Strength Based Indoor Localization And Tracking Algorithms Using Field Data 03/2013
- ECS 257 (Mobile/Wireless Networks) Course Project.
- https://github.com/huragok/ECS257.

PUBLICATIONS

[1] W. Wu, C. Jiang, Z. Ding, "On Efficient Packet Switched Wireless Networking: A Markovian Approach to Trans-layer Design and Optimization of ROHC", submitted for publication.

[2] W. Wu, H. Mittelmann and Z. Ding, "Modulation Design for MIMO-CoMP HARQ", *IEEE Commun. Lett.*, to be published.

[3] W. Wu, H. Mittelmann and Z. Ding, "Modulation Design for Two-Way Amplify-and-Forward Relay HARQ," *IEEE Wireless Commun. Lett.*, vol. 5, no. 3, pp. 244-247, June 2016.

[4] W. Wu, H. Mittelmann, and Z. Ding, "Statistical analysis of a posteriori channel and noise distribution based on HARQ feedback, preprint: arXiv:1601.04131v1, 2016.

[5] W. Wu, K. Wang, W. Zeng, Z. Ding, and C. Xiao, "Cooperative multi-cell MIMO downlink precoding with finite-alphabet inputs," *IEEE Trans. Commun.*, vol. 63, no. 3, pp. 766-779, Mar. 2015.

[6] W. Wu, K. Wang, Z. Ding, and C. Xiao, "Cooperative multi-cell MIMO downlink precoding for finite-alphabet inputs," in *IEEE Proc. Int. Conf. Acoust., Speech, Signal Process.*, May 2014, pp. 464-468.

WEBSITES

- LinkedIn: https://www.linkedin.com/in/wenhao-wu-0ab2494b
- Github: https://github.com/huragok

HONORS & AWARDS

Third-class Excellent Social Service Scholarship, Tsinghua University. 10/2011

Honor of Excellent Leader of the Student Association for Science and Technology, Tsinghua University. 04/2011

First-class Outstanding Scholarship (Samsung Scholarship), Tsinghua University/Samsung. 12/2009

Second-class Outstanding Freshman Scholarship, Tsinghua University. 12/2008