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, CA

Advisor: Prof. Zhi Ding Cumulative GPA: 3.95 Minor: Mathematics

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

TECHNICAL SKILLS

- Java, Python, C/C++, Matlab/GNU Octave, R.
- Experience with HTML, XML, JavaScript, D3 and CSS.
- 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.

Infering the Night Life Hotspot in NYC from Taxi Trip Data

06/2016

01/2016

- MAT 280 (Mathematical Foundations for Big Data) Course Project
- $\bullet \ \mathtt{https://github.com/huragok/MAT280/tree/master/project}.$

A Partial Solution Manual for: The Elements of Statistical Learning

• 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, H. Mittelmann and Z. Ding, "Modulation Design for MIMO-CoMP HARQ", submitted for publication.
- [2] 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.
- [3] 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.
- [4] W. Wu, K. Wang, W. Zeng, Z. Ding, and C. Xiao, "Cooperative multi-cell MIMO downlink precoding with finite-alphabet inputs," *IEEE Trans. Com*mun., vol. 63, no. 3, pp. 766-779, Mar. 2015.
- [5] W. Wu, K. Wang, Z. Ding, and C. Xiao, "Cooperative multi-cell MIMO down-link 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-Oab2494b
- 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 04/2011 and Technology, Tsinghua University.

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

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