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SUMMARY

- Strong foundation in Quantitative Analysis, Statistical Data Analysis, Applied Stochastic, and Estimation Theory
- Proficient in MATLAB, C++, experience with Python and R
- Solid fundamentals, knowledge of Wireless Communications and Statistical Signal Processing and Audio Processing
- Strong knowledge in LTE/WCDMA systems, GSM, Bluetooth and MIMO-OFDM systems
- Experienced in arbitrary waveform generator, digital sampling scope
- 2 years industry experience in wireless communication systems and signal processing algorithms

EDUCATION

- Oregon State University, Ph.D. Wireless Communication and Signal Processing 2010-2015
- University of Science and Technology, M.S. in Wireless Communications and Signal Processing 9/2006-3/2009
- Khajeh Nassir Toossi, B.S. Wireless Communications 9/2001-09/2006

RESEARCH AND PROFESSIONAL EXPERIENCE

Department of Electrical Engineering, Oregon State University Doctoral Research

Adviser: Prof. Huaping Liu 2010- July 2015

- ***Thesis***: "Ultra-Wide Band Relay Communications"
- ***Responsibilities***: Developing an algorithm to classify the LOS/NLOS UWB channel based on channels statistics information. Improving system performance by degrading the effects of NLOS channel in the localization procedure. Developing new asynchronous, non-coherent UWB relay communication which is useful for bidirectional relay communication.
- ***GPA***: 3.75/4

Wireless Communication Systems Group, Oregon State University Research Assistant

Mentor: Prof. Huaping Liu 2010-2015

- ***Project***: Developing a 3-D centimeter-accuracy ultra-wideband (UWB) wireless localization system utilized in airplanes for the Boeing Company.
- ***Project***: Testing and comparing the prototype UWB localization system with the TD UWB localization chip for the Trimble Company.
- ***Responsibilities***: Responsible for design and improvement of the algorithms needed for signal processing part of the project. Studying the performance of the system in line-of-sight (LOS) and non-line-of-sight (NLOS) environments. Converting MATLAB code to C++.

Radar Communications and Systems Research Center Research and Development Engineer

- ***Project***: Analyzing the Blind Modulation Detection (BMD) algorithms 2007–2009
- ***Responsibilities***: Different BMD schemes for different modulation schemes were studied under the same conditions, which allows a fair comparison among different methodologies. The performance of the algorithms was evaluated in MATLAB.

PROGRAMMING SKILLS

- Proficient in MATLAB, C++
- Experience in Python and R

GRADUATE COURSES

- Estimation, Detection and Filtering
- Information Theory
- Stochastic Signals Processing
- Network Theory
- Advanced Coding Theory
- Adaptive Filtering Theory

PUBLICATIONS

- Arash Abbasi, H. Liu, "Improved LOS/NLOS Classification Methods for Pulsed Ultra wideband Localization," *IET Communications Journal*. 2014.
- Arash Abbasi, M. H. Kahaei, "Improving Source Localization in LOS and NLOS Multipath Environments for UWB Signals," *International Computer Conf, CSI*, pp. 310-316, Oct. 2009.
- Arash Abbasi, H. Liu, "Asynchronous Differential Bidirectional Relay UWB Communications," in preparation to submit to IEEE Transactions
- Arash Abbasi, H. Liu, "UWB Channel Estimation Based on Using Coarse Graining Algorithm in Compress Sensing" in preparation to Submit to IEEE Transactions