

Vinay Majjigi

Sunnyvale, CA 94086

EDUCATION

PhD in Electrical Engineering: Expected Jan 2011
STANFORD UNIVERSITY, Stanford, CA

MS in Electrical Engineering: Jan 2008
STANFORD UNIVERSITY, Stanford, CA.

BS in Electrical Engineering: Dec 2004
CASE WESTERN RESERVE UNIVERSITY, Cleveland, Ohio.

Coursework: Digital Communications, MIMO Communications, Convex Optimization, Wireless Communications, Wireless PCS, Statistical Signal Processing, Principles of Radar Systems, Information Theory, Computer Networks

WORK EXPERIENCE

Stanford University, Research Assistant, Stanford, CA Sept 08-Present
Published 8 papers on wireless communication related to 4G OFDMA Systems
Researched related topics for my thesis including resource allocation, scheduling, and cross-layer optimization
Received excellent rating as teaching assistant for the graduate course Statistical Signal Processing

Bump Technologies, Consultant, Mountain View, CA Nov 09-Present
Developed signaling and waveform algorithms for *Bump* iPhone application
Conducted various research and development studies for future applications

Qualcomm, Intern Communication Engineer, San Diego, CA June-Sept 09
Developed detection algorithms for the 4G wireless network LTE
Reviewed various wireless standards including UMTS and LTE

Northrop Grumman, System and Communication Engineer, Fairfax, VA Jan-Aug 05 & June-Aug 06 & Sept 07
Developed carrier tracking algorithms
Tested and integrated software systems developed in C++ and Python

Boeing, Junior Engineer, Herndon, VA Jan-Jul 04
Developed software demodulator for spread spectrum signal
Performed trade studies and assisted in proposal preparation for embedded electronics and optical systems

Case Western Reserve University Education Support Service, Mathematics Tutor, Cleveland, OH Oct 01-May 02
Provided individual assistance in Calculus I, Calculus II, and Multi-Variable Calculus

COMPUTER SKILLS

MATLAB, C, Python, Unix Systems, LaTeX, MS Office Applications

HONORS AND DISTINCTION

National Defense Science and Engineering Graduate Fellowship, 2005 - Full-tuition and Stipend

NSF Graduate Fellowship Honorable Mention, 2005

Case Western Reserve University's Trustee Scholarship, 2000-2004 - Full-tuition

Dean's High Honors at Case Western Reserve University, 2000-2004 - 7 of 7 semesters

IEEE Treasurer, 2003

Tau Beta Pi, 2002

PUBLICATIONS

Stochastic Optimization for Variable Rate Applications with Time-Varying Statistics

Vinay Majjigi, Daniel O'Neill, John Cioffi. *ICC*, May 2010. Capetown, South Africa.

Buffer State Information: Two-Level Water-Filling for Fixed Rate Applications

Vinay Majjigi, Daniel O'Neill, John Cioffi. *Globecom*, December 2009. Honolulu, HI.

User Profiling: A Method to Guarantee QoS in Limited Feedback OFDMA Systems

Vinay Majjigi, Rajiv Agarwal, John Cioffi. *ICC*, June 2009. Dresden, Germany.

Mobility Dependent Feedback Scheme for point-to-point MIMO Systems

Gonzalo Vazquez-Vilar, Vinay Majjigi, Aydin Sezgin and Arogyaswami Paulraj. *Asilomar*, Oct 2008. Pacific Grove, CA.

Persistent Resource Allocation in OFDMA Networks for Real-Time and Non-Real Time Traffic

Vinay Majjigi, Rajiv Agarwal, Rath Vannithamby, John Cioffi. *Asilomar*, Nov 2007. Pacific Grove, CA.

Low Complexity Resource Allocation with Opportunistic Feedback over Downlink OFDMA Networks

Rajiv Agarwal, Vinay Majjigi, Zhu Han, Rath Vannithamby, John Cioffi. *IEEE JSAC Special Issue on Limited Feedback*, 2008.

Efficient Scheduling for Heterogeneous Services in OFDMA Downlink

Rajiv Agarwal, Vinay Majjigi, Rath Vannithamby, John Cioffi. *Globecom*, December 2007. Washington D.C

Efficient Scheduling for Heterogeneous Traffic in Downlink

Rajiv Agarwal, Vinay Majjigi, Rath Vannithamby, John Cioffi. *VTC*, Fall 2007. Baltimore, MD.

REFERENCES

Available upon request