

CALEB LO

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OBJECTIVE

Obtain a research and development position in wireless communications

EDUCATION

The University of Texas at Austin (8/05-12/08)
Ph.D. in Electrical and Computer Engineering, December 2008
GPA (3.8/4.0)

Relevant Coursework: Space-Time Communication, Methods of Applied Mathematics, Digital Time Series Analysis and Applications, Algorithms: Techniques and Theory, Applied Stochastic Processes, Wireless and Mobile Networking

The University of Texas at Austin (8/03-5/05)
M.S.E. in Electrical and Computer Engineering, May 2005
GPA (3.8/4.0)

Relevant Coursework: Digital Signal Processing, Wireless Communications, Real Analysis, Optimization in Engineering Systems, Information Theory, Algebraic Structures, Channel Coding, Analysis and Design of Communication Networks, Stochastic Optimization

The California Institute of Technology (9/99-6/03)
B.S. in Electrical Engineering, June 2003
GPA (3.5/4.0)

Relevant Coursework: Signals and Systems, Random Processes for Communication and Signal Processing, Communication-System Fundamentals, Networking, Information Theory, Error-Correcting Codes, Communication Theory, Stochastic and Adaptive Signal Processing

The University of California at Berkeley (8/98-5/99)
High School Honors Program

WORK EXPERIENCE

Rockwell Collins, Cedar Rapids, IA (6/05-8/05)

Graduate Engineering Coop: Assisted in wireless testbed data collection for directional-antenna communications system; analyzed parameters such as multipath delay spread and spatial channel correlation of various environments in which RF field tests were performed

MIT Department of Chemical Engineering, Cambridge, MA (7/02-9/02)

Research Assistant: Designed algorithms using Matlab for image processing; assisted in the collection of data from laser-interferometer experiments

Boeing Satellite Systems, El Segundo, CA (6/01-9/01)

Summer Intern: Developed a graphical user interface for analysis of satellite test data using Matlab

Hughes Space and Communications, El Segundo, CA (7/00-9/00)

Summer Intern: Developed data analysis software for satellite testing using Microsoft Visual Basic

Kaiser Permanente, Oakland, CA (6/00-7/00)

Receptionist: Worked on filing and data entry of patient records

JOURNAL PAPERS

C.K. Lo, J.J. Hasenbein, S. Vishwanath and R.W. Heath, Jr., "Relay-assisted scheduling in wireless networks with hybrid-ARQ," submitted to the IEEE Transactions on Vehicular Technology, Oct. 2008.

C.K. Lo, S. Vishwanath and R.W. Heath, Jr., "An energy-based comparison of long-hop and short-hop routing in MIMO networks," submitted to the IEEE Journal on Selected Areas in Communication, Aug. 2008.

C.K. Lo, S. Vishwanath and R.W. Heath, Jr., "Rate bounds for MIMO relay channels," Journal of Communications and Networks, 10(2):194-203, Jun. 2008.

C.K. Lo, S. Vishwanath and R.W. Heath, Jr., "Selection strategies for relay-assisted communication," submitted to the IEEE Communications Magazine, Jun. 2008.

C.K. Lo, S. Vishwanath and R.W. Heath, Jr., "Relay subset selection in wireless networks using partial decode-and-forward transmission," accepted to the IEEE Transactions on Vehicular Technology, Jun. 2008.

C.K. Lo, R.W. Heath, Jr. and S. Vishwanath, "The impact of channel feedback on opportunistic relay selection for hybrid-ARQ in wireless networks," accepted to the IEEE Transactions on Vehicular Technology, Jun. 2008.

CONFERENCE PAPERS

C.K. Lo, S. Vishwanath and R.W. Heath, Jr., "Relay subset selection in wireless networks using partial decode-and-forward transmission," in Proc. of the IEEE Veh. Technol. Conf., 1:2395-2399, Singapore, May 2008.

C.K. Lo, R.W. Heath, Jr. and S. Vishwanath, "Opportunistic relay selection with limited feedback," in Proc. of the IEEE Veh. Technol. Conf., 1:135-139, Dublin, Ireland, Apr. 2007.

C.K. Lo, R.W. Heath, Jr. and S. Vishwanath, "Hybrid-ARQ in multihop networks with opportunistic relay selection," in Proc. of the IEEE Intl. Conf. on Acoust., Speech and Signal Processing, 3:617-620, Honolulu, HI, Apr. 2007.

C.K. Lo, S. Vishwanath and R.W. Heath, Jr., "Rate bounds for MIMO relay channels using precoding," in Proc. of the IEEE Global Telecommun. Conf., 3:1172-1176, St. Louis, MO, Nov. 2005.

HONORS

Thrust 2000 Endowed Graduate Fellowship (2003-2007)

Microelectronics and Computer Development Fellowship (2003-2005)

Texas Telecommunications Engineering Consortium Fellowship (2003)

Chung Kun Ai Foundation Scholarship (1999-2003)

National Merit Finalist (1999)

USA Mathematical Talent Search Prize Winner (1999)

US DOE National Science Bowl Fifth Place Team (1999)

COMPUTER SKILLS

Programming: Java, XML, HTML, LabVIEW, Matlab, LaTeX, Assembly (Intel 80C186 microprocessor instruction set), ABEL, PALASM, Microsoft Visual Basic, Turbo C++, GW BASIC

Applications: Mathematica, Maple, Adobe Illustrator, Protel Schematic Editor, Puff Circuit Simulator, HomeCare Management System database, Microsoft Office, Word Perfect

Operating Systems: Windows, Mac OS

CITIZENSHIP

United States (by birth)