Yeow-Khiang Chia

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Research Interest

Information Theory, Optimization, Machine learning and Signal Processing, Communications

Education

Stanford University

Ph.D. in Electrical Engineering, January 2012

Thesis topic: Multi-terminal Secrecy and Source Coding

GPA: 4.0/4.0

Advisers: Profs. Abbas El Gamal and Tsachy Weissman Thesis Committee: Profs. Thomas Cover and Ada Poon

Stanford University

M.S. in Electrical Engineering, January 2012, GPA: 4.0/4.0

Imperial College, London

M.Eng. (First Class Honours) in Electrical Engineering June 2001

Thesis topic: Lyapunov methods for adaptive gain control

Professional Experience

Scientist, Modulation and Coding Department, Institute for Infocomm Research, Singapore

Feb 2012 - Current

Research Assistant, El Gamal Group, September 2006 - December 2011

Visiting Research student, Prof. Zhang Lin's group, Tsinghua University, China March 2010 - May 2010. Worked with Prof. Zhang Lin and students on Throughout and Delay scaling in wireless mobile networks

Summer Intern, Ji Research Group,

June 2007- September 2007. Worked with Profs. Hanlee Ji and Tsachy Weissman on signal processing for shotgun DNA sequencing

Research Attachment Internship at Institute for Infocomm Research, Singapore August 2005 - August 2006. Worked with Dr Abdul Rahim Leyman on signal processing for localization

Strategic Planning Executive, Ministry of Home Affairs, Singapore April 2003 - July 2005. Worked on manpower, budget, coordination and planning policies for the Ministry

Summer internship at Center for Imaging, Remote Sensing and Processing (CRISP) July 2000 - September 2000. Worked on image processing algorithms for satellite images

Awards and Honors

Stanford Graduate Fellowship, 2009 - 2011

Singapore Agency for Science, Technology and Research (A*STAR) National Science Scholarship, 2006-2011

IEE prize for distinction (top performing student) in the four years degree course at Department of Electrical and Electronics Engineering, Imperial College. June 2001

Singapore Public Service Commission scholarship for undergraduate studies at Imperial College, 1997-2001

Skills

Masters and PhD level courses taken at Stanford University:

- Information Theory and Probability Theory
- Machine Learning and Signal Processing
- Mathematical Optimization and Discrete Algorithms
- Control Theory, Linear Dynamical Systems and Stochastic Systems
- Game Theory and Economics

Programming skills and experience: Proficient in C, C++, Python, Matlab, R

Teaching Experience

Teaching Assistant, EE278A: Introduction to Statistical Signal Processing Taught by Prof. Tsachy Weissman, Fall 2012.

Teaching Assistant for short course in Network Information Theory taught at Tshinghua University, China

Taught by Prof. Abbas El Gamal, March 2010-April 2010.

Publications

A full list of publications can be obtained from the following website: http://www1.i2r.a-star.edu.sg/~chiayk/publications.html

Professional Activities

Reviewer for the following journals and conferences

- IEEE Transactions on Information Theory
- IEEE Symposium on Information Theory 2009-2013
- IEEE Transactions on Communications
- IEEE Transactions on Wireless Communications
- IEEE Transactions on Information Security and Forensics

Member, IEEE and IEEE ComSoc

Community Service

Military Service in the Singapore Army 2001 - 2003

- Served as a tank commander in Singapore Army Combat Engineers
- Served as a special projects clerk in the Operations Research Department of the Singapore Army

References

Available on request