Yeow-Khiang Chia

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Objective	Obtain a PhD level research and development position in the areas of Statistics, Optimization, Machine Learning and application of Mathematics to real world problems.
Research Interests	Information Theory, Machine Learning and Signal Processing, Operations Research, Wireless Communications and Networking

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, Data Analytics Department, Institute for Infocomm Research, Singapore
April 2014 - Current. Working on the following projects

- Financial and Audit Analytics for DBS Singapore. Project is part of DBS-I2R Joint laboratory.
- Financial Analytics and Algorithms for commodity trading. Project is a joint project with Wealth Sciences Pte Ltd and Straits Financial LLC.
- Signal processing algorithms for Book Sequencing from RFID time series readings. Joint project with National Library Board of Singapore.

Scientist, Advanced Communication Department, Institute for Infocomm Research, Singapore. Feb 2012 - April 2014.
Worked on the following projects: i) Energy resource optimization in cellular networks with renewable energy resources; ii) Fundamental Information Theoretic limits of network communication systems.

Research Assistant, El Gamal Group,
September 2006 - December 2011. PhD thesis research on Network Information Theory

Visiting Research student, Prof. Zhang Lin's group, Tsinghua University, China
March 2010 - May 2010. Worked 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 at Institute for Infocomm Research, Singapore
August 2005 - August 2006. Worked with on signal processing for localization

Strategic Planning Executive, Ministry of Home Affairs, Singapore
April 2003 - July 2005. Responsible for Manpower, Budget and planning policies.

Summer intern 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, Probability Theory and Stochastic Systems**; **Machine Learning and Signal Processing**; **Mathematical Optimization and Discrete Algorithms**; **Control Theory, Game Theory and Economics**.

I have also taken and completed (with statements of accomplishment) the following two online courses: **Machine Learning (Coursera), May 2014** and **Introduction to Statistical Learning with R (Stanford Online), April 2014**.

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

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 Tsinghua 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 2009 - Current
- IEEE Symposium on Information Theory 2009- Current
- Other IEEE Transactions: Communications, Wireless Communications, Information Security and Forensics

Member, IEEE and IEEE Information Theory Society

References

Available on request