

SIMON JOHN GALBRAITH

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OBJECTIVE

Research into and development of scientific software processes for the discovery, organization, and storage of reliable genotype/phenotype markers in personalized genetic data.

EDUCATION

Ph.D. Computer Science (ABD) (expected)
University of California, Los Angeles Fall 2007
P.I. Dr. James C Liao Winter 2008
Dissertation Title: *Inferring Transcription Factor Activity*

M.S. Computer Science 2003
University of California, Los Angeles

B.S. (Honors) Artificial Intelligence 2000
University of Durham, England, U.K.
Thesis: Intron-Exon Splice Site Identification in *Arabidopsis thaliana* genomic DNA using Global and Local Prediction.

PUBLICATIONS

- **Galbraith, S. J.**, Tran, L.M., Liao, J.C. (2006). "Transcriptome network component analysis with limited microarray data." *Bioinformatics* 22(15): 1886-94.
- Yang, Y. L., Suen, J., Brynildsen, M., **Galbraith, S.J.** *et al.* (2005). "Inferring yeast cell cycle regulators and interactions using transcription factor activities." *BMC Genomics* 6(1): 90.
- Irizarry, K. J. and **Galbraith, S.J.** (2004). "Complex disorders reloaded: causality, action, reaction, cause and effect." *Mol Psychiatry* 9(5): 431-2, 430.

EXPERIENCE

Graduate Student Researcher July 2003-present
P.I. Dr. James C Liao
Department of Chemical and Biomolecular Engineering,
University of California, Los Angeles

- Developed theoretical, algorithmic, and numerical improvements to Network Component Analysis (NCA). Developed the NCA Toolbox for MATLAB, including a standalone JAVA application.
- Developed systems biology methodologies for the analysis of transcriptional regulatory networks. Participated in the development of systems biology methodologies for metabolic engineering.
- Skills: Python, C++, JAVA, MATLAB, R, Perl, JavaScript, AJAX, web development, mysql, LINUX cluster development.
- Analytical: Bioinformatics, systems biology, applied statistics and probability, machine learning, algorithms, and dynamic systems.

Teaching Assistant Various 2001-2007
Instructor: Dr. Parag Mallick
CHEM160/CHEM260 Bioinformatics and Genomics
University of California, Los Angeles

- Developed material for discussion, programming labs, and exams. Lead TA and guest lecturer.

AWARDS AND INTERESTS

National Science Foundation (NSF) IGERT Fellowship 2001-2003
Travel, art, piano, golf, soccer, and opera

