GUANG YANG

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY, Berkeley, CA
Candidate for M.S. in Industrial Engineering & Operations Research Expected – Dec 2014

- *Coursework (current*)*: Intro to Data Science*, Statistical Computing*, Applied Stochastic Processes, Learning and Optimization, Mathematical Programming, Supply Chain and Logistics Management, Financial Engineering
- UC Berkeley Graduate Fellowship 2013

RICE UNIVERSITY, Houston, TX
B.A. in Computational and Applied Mathematics (CAAM) May 2013

- *Coursework*: Numerical Analysis, Neural Machine Learning, Optimization Theory, Applied Matrix Analysis, Complex Analysis, Probability and Statistics

TECHNICAL

- *Processing*: Python, SQL, Unix
- *Modeling*: MATLAB, R, AMPL
- *Presentation*: LaTeX, d3.js, HTML, CSS
- *Tools*: git, vim

RESEARCH

BERKELEY COMPUTATIONAL OPTIMIZATION LAB, Berkeley, CA
Graduate Student Research (Advisor: Dr Alper Atamtürk) Aug 2013 – May 2014

- Formulated and implemented an algorithm to analyze exact reachability for skew-line needle planning in automated brachytherapy
- Published results in an article for the IEEE CASE 2014 Conference

TEXAS CHILDREN'S HOSPITAL HEART CENTER, Houston, TX
CAAM Senior Design (Advisors: Drs Mark Embree, Thomas Callaghan) Aug 2012 – May 2013

- Developed a MATLAB GUI that extracts cardiac pressure gradients from echocardiogram data using smoothing splines and simplified Navier-Stokes equation
- Presented findings to the Chief of Pediatric Cardiology, Dr Daniel Penny, at TCH

RICE UNIVERSITY, Houston, TX
NSF, VIGRE Summer Internship (Advisor: Dr Wotao Yin) May – Jul 2012

- Applied the machine learning method, Regularized Dual Averaging, to classify electroencephalogram recordings of patients performing a visual categorization task
- Awarded CAAM-Chevron Undergraduate Research Prize 2013

NATIONAL INSTITUTE FOR MATHEMATICAL AND BIOLOGICAL SYNTHESIS, Knoxville, TN
NSF, Research Experience for Undergraduates June – August 2010

- Built a model in R to simulate the dynamics of Johne's Disease in a U.S. dairy heard. Performed cost analysis comparing existing control strategies and a newly developed testing method
- Published results in a paper for Journal of Biological Systems

TEACHING

UC BERKELEY SCHOOL OF INFORMATION Berkeley, CA
Teaching Assistant June 2014 – Present

- 'Exploring and Analyzing Data', part of the Master of Information and Data Science program
- 'Introduction to High Level Programming', an introductory course to Python in the summer

RICE UNIVERSITY Houston, TX
Head Academic Fellow (Will Rice College) August 2012 – May 2013

- Led 25+ Academic Fellows in providing academic assistance to underclassmen and organizing events to stimulate the intellectual environment