

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

- *Course work:* Learning and Optimization, Mathematical Programming, Supply Chain and Logistics Management, Applied Statistic Processes, Financial Engineering
- UC Berkeley Graduate Fellowship 2013

RICE UNIVERSITY, Houston, TX

B.A. in Computational and Applied Mathematics (CAAM) Aug 2011 – May 2013

- *Course work:* Numerical Analysis, Optimization Theory, Applied Matrix Analysis, Complex Analysis, Probability and Statistics

TECHNICAL

- *Data Manipulation:* Python, SQL, shell
- *Visualization:* Javascript (d3.js)
- *Modeling:* MATLAB, R, AMPL
- *Other:* git, vim, L^AT_EX, HTML, CSS

RESEARCH

BERKELEY COMPUTATIONAL OPTIMIZATION LAB, Berkeley, CA

Graduate Student Research (Advisor: Dr Alper Atamtürk) Aug 2013 – May 2014

- Derived and implemented an algorithm to analyze exact reachability for skew-line needle planning in automated brachytherapy.
- Culminated 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 (RDA) method, to classify electroencephalogram recordings of patients performing a visual categorization task
- Awarded CAAM-Chevron Undergraduate Research Prize 2013

TEACHING

UC BERKELEY SCHOOL OF INFORMATION Berkeley, CA

Teaching Assistant June 2014 – August 2014

- 'Exploring and Analyzing Data', part of the master in data science program at Berkeley
- 'Introduction to High Level Programming', an introductory course to Python

RICE UNIVERSITY Houston, TX

Head Academic Fellow (Will Rice College) June 2014 – August 2014

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

PUBLICATION

- A. Garg, T. Siau, G. Yang, S. Patil, A. Cunha, I. Hsu, J. Pouliot, A. Atamtürk, K. Goldberg. *Exact Reachability Analysis for Planning Skew-Line Needle Arrangements for Automated Brachytherapy*. IEEE International Conference on Automation Science and Engineering, 2014.

LEADERSHIP

- President, Rice Table Tennis Club. Organized the campus-wide 2012 IEW Tournament