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

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

APPALACHIAN STATE UNIVERSITY, Boone, NC
Completed courses in Mathematics and Actuarial Science Aug 2009 – May 2011

AWARDS

- UC Berkeley Graduate Fellowship 2013
- CAAM-Chevron Undergraduate Research Prize 2013
- Meritorious winner, COMAP Mathematical Contest in Modeling 2011
- 1st Place, Rice ASME Engineering Design Competitions 2011, 2012
- NSF, Research Experience for Undergraduates
  - Claremont Colleges, Claremont, CA (summer 2011)
  - National Institute for Mathematical and Biological Synthesis, Knoxville, TN (summer 2010)

EXPERIENCE

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

- *(Individual)* Derived and implemented an algorithm in MATLAB to analyze exact reachability for skew-line needle planning in automated brachytherapy.
- Culminated in an article submitted 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

- *(Team)* 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

- *(Individual)* 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

PUBLICATION

- A. Garg, T. Siauw, **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. *submitted*

TECHNICAL EXPERIENCE

- *Mathematical*: MATLAB, R, AMPL
- *Other*: MySQL, LaTeX, PHP, HTML, CSS

LEADERSHIP

- Head Academic Fellow, Will Rice College. Led 25+ Academic Fellows in providing academic assistance to underclassmen and organizing events to stimulate the intellectual environment
- President, Rice Table Tennis Club. Organized the campus-wide 2012 IEW Tournament