

# GUANG YANG

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Berkeley, CA 94704

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gy8@berkeley.edu

## 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 (full tuition with stipend)

### RICE UNIVERSITY, Houston, TX

*B.A. in Computational and Applied Mathematics (CAAM)* May 2013

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

## TECHNICAL

- *Data Processing:* Python, SQL, shell
- *Visualization:* Javascript (d3.js)
- *Modeling:* MATLAB, R, AMPL
- *Other:* git, vim, L<sup>A</sup>T<sub>E</sub>X, 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 of Information and Data Science program
- 'Introduction to High Level Programming', an introductory course to Python

### 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

## 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.
- T. Massaro, S. Lenhart, M. Spence, C. Drakes, **G. Yang**, F. Agosto, R. Johnson, B. Whitlock, A. Wadhwa, S. Eda. "Modeling for Cost Analysis of Johne's Disease Control Based on EVELISA Testing". Journal of Biological Systems 21, no. 04, 2013.