

# GUANG YANG

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2547 Piedmont Avenue #1  
Berkeley, CA 94704

<http://www.decf.berkeley.edu/~gyang>  
gy8@berkeley.edu

## EDUCATION

### UNIVERSITY OF CALIFORNIA, BERKELEY, Berkeley, CA

*Candidate for M.S. in Industrial Engineering & Operations Research* Expected – Dec 2014

- *Coursework (current\*)*: Statistical Computing\*, Information Organization and Retrieval\*, 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

- *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

- 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 John's Disease in a U.S. dairy herd. 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