

# Andreas Santucci

santucci@stanford.edu

www.linkedin.com/in/santucciandreas

(650) 814 - 0024

## Education:

**M.S. in Computational and Mathematical Engineering, Data Science** (GPA 3.96) June 2017  
Stanford University, Stanford, CA

**B.A. in Economics, Highest Honors** (Major GPA 3.96) May 2012  
University of California, Berkeley, CA

Honors Thesis – research & regression analysis comparing [non]student-athlete GPAs

## Work Experience:

**Teaching Fellow**– Stanford University, Stanford, CA (Summer 2016 - Present)

- Engineered an AutoGrader system, to facilitate programmatic grading of students' computer programs

**Computational Engineering Intern** – Lawrence Livermore National Lab, Livermore, CA (Summer 2015)

- Contributed to SparkPlug, an open source statistical computing project for Spark, written in Scala
- Implemented distributed Markov Chain Monte Carlo to be used in SparkPlug
- Implemented statistical distributions (such as Beta, Pareto, Inverse-Wishart) and relevant methods for extracting sufficient statistics, as well as Bayesian updating methods for use with conjugate priors
- Educated peers on efficient computational techniques in R

**Research Analyst** – The Brattle Group, San Francisco, CA (May 2012 – June 2014)

- Wrote programs using statistical software to collect, analyze, and present gigabytes of data which were used in large litigation cases to support expert testimony
- Wrote a spell checker using regular expressions to recover thousands of GPS coordinates from a text-field on a proprietary survey at an accuracy of 97% (according to manual review of sampled output)
- Utilized ArcGIS, Python, and disparate types of mapping data to estimate, from scratch, the miles of coastline within each US state (output was in consensus with NOAA estimates)
- Created and presented eight R training programs: big data packages, parallel computing, mapping, text mining, web scraping, manipulating Excel workbooks in R, and regular expressions
- Composed dynamic memos using LaTeX, R, and "knitr" to describe results to clients and project managers in a way that is visually appealing and robust to new results
- Project work: forecasting electricity demand, demand response estimation for utilities, environmental impact evaluation, logit models, geospatial analyses, and mapping

## Teaching Assistance:

- CME 106 (Winter 2016), CME 323 (Spring 2016), CME 211 (Fall 2016), CME 305 (Winter 2017)

## Skills & Coursework:

- Programming – R, C, C++, Scala, Spark, Stata, MATLAB, Python, ArcGIS, LaTeX
- Coursework – (Distributed) Algorithms, Data Mining, Statistical Modeling, Stochastic Processes, Econometrics, Programming Abstractions, Systems Programming, Microeconomics, Game Theory

## Accomplishments:

- “Walk-on” student-athlete for the University of California at Berkeley Swimming and Diving team
  - NCAA Team Champion in 2011 & 2012
  - Member of travel squad in 2012 season
- Neufeld Scholar Athlete 2012 – highest cumulative GPA of all student-athletes at U.C. Berkeley
- Student Commencement Speaker at Foothill graduation 2010
- All – American springboard diver and team captain of Swim and Dive team at Foothill College in 2010