

# Greg Faletto

DATA SCIENTIST · PH.D. STUDENT

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## Employment History (Summary)

### [Undisclosed Tech Startup]

Los Angeles, CA

RESEARCH CONSULTANT

Oct. 2019 -

- Developing an algorithm for a core business objective (can't disclose details under agreement).
- Working with adviser and communicating regularly with key startup data scientists.

### ZipRecruiter

Santa Monica, CA

DATA ANALYTICS RESEARCH INTERN

Jul. 2017 - Jan. 2018

- Developed a model that predicts whether a job seeker will apply to a given job listing to infer preferences for forms of compensation.
- Chose observational study design and model form. Accessed data via SQL. Conceived outcome metric, constructed from raw data.
- Worked mostly independently under light supervision from ZipRecruiter and Dr. Sanjog Misra (Prof. of Marketing, U. of Chicago).

## Education

### University of Southern California Marshall School of Business

Los Angeles, CA

PH.D. IN DATA SCIENCES AND OPERATIONS (STATISTICS TRACK)

Aug. 2018 -

- Advisor: Dr. Jacob Bien
- Current research: developing a novel feature selection method; solving applied business problem with tech startup (see above).
- Coursework includes: mathematics of deep learning, generalized linear models, convex optimization, probability, stochastic processes, high dimensional statistics, mathematical statistics, time series, dynamic programming.

### Washington University in St. Louis

St. Louis, MO

B.A. IN PHYSICS

Aug. 2006 - Dec. 2009

- Graduated Phi Beta Kappa and with College Honors in Arts and Sciences. Dean's List every semester.

### Online Coursework (MOOCs)

Jan. 2016 - Dec. 2017

- **Coursera:** "Machine Learning" (Andrew Ng/Stanford), "Econometrics: Methods and Applications" (Erasmus University Rotterdam).
- **Stanford Lagunita:** "Statistical Learning" (Trevor Hastie and Rob Tibshirani), "Databases: SQL," "Databases: Relational Algebra."
- **Datacamp:** "Intro to Python for Data Science," "Data Visualization with ggplot2," "Intermediate R," "Introduction to R."

## Data Science Competitions

### City of Los Angeles and RMDS

2020 COVID-19 COMPUTATIONAL CHALLENGE

Jun. 2020

- Team won second place. Interpreted general goals without specific directions.
- Used daily neighborhood test results across Los Angeles to estimate numbers of susceptible, infected, and recovered citizens in each neighborhood on each day. Forecasted new infections in each neighborhood a day ahead based on currently available information using a GLM panel data model (Poisson autoregressive count model with time- and neighborhood-based covariates). Finally, calculated per capita predicted new infections in each neighborhood and converted to risk scores.
- Full solution writeup and code available at [grmds.org/2020challenge](https://grmds.org/2020challenge).

### Orange County R Users Group

ORANGE COUNTY R USER GROUP HACKATHON 2019

May 2019

- Team won "Best Model." Over the course of two days, developed a model associating health outcomes in California counties with levels of water pollutants. More information at [gregoryfaletto.com/2019/05/19/our-entry-in-the-ocrug-hackathon-2019/](https://gregoryfaletto.com/2019/05/19/our-entry-in-the-ocrug-hackathon-2019/).
- Presented models at May 2019 meeting of Orange County R Users Group.

## Publications

### Proceedings of the National Academy of Science of the United States of America

"MEASURING THE PREDICTABILITY OF LIFE OUTCOMES WITH A SCIENTIFIC MASS COLLABORATION"

May - Aug. 2017

- Participated in Princeton University Fragile Families Challenge. Cleaned data and created models to predict three outcome variables in a training set with thousands more predictors than observations and a great deal of missing data. Co-author of article on project. Article: [pnas.org/content/117/15/8398](https://pnas.org/content/117/15/8398). Code and details of my contribution: [github.com/gregfaletto/fragilefamilies](https://github.com/gregfaletto/fragilefamilies).