

# Aaron Springer

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## Related Work Experience

### Quantitative Analyst Intern at Google

June 2018 – September 2018

Supervisor: Joy Thomas

- Created explanation capabilities for a complex machine learning pipeline
- Developed novel method for adaptable dashboards for high dimensional data

### Research Intern at Spotify

July 2017 – December 2017

Supervisor: Henriette Cramer

- Identified data and algorithmic biases detrimental to performance in a voice interface
- Developed method to fix biases, improving revenue producing metrics ~1%
- Work resulted in 2 provisional patents and a full patent application

### Research Intern/Visiting Researcher at Xerox PARC

Summer 2016 – December 2017

Supervisor: Peter Pirolli

- Designed and orchestrated longitudinal randomized controlled trial, completed mixed-effects logistic regression analysis, and published journal submission

### Research Assistant at University of California Santa Cruz

Fall 2014 – Present

Research Advisor: Steve Whittaker

- Designed and implemented production machine learning backend forecasting personal mood and recommending positive activities
- Developed an interactive machine learning system that predicts user mood; evaluated user trust and perceptions both quantitatively and qualitatively

## Relevant Skills

**Machine Learning:** Regression, Classification, Natural Language Processing, Clustering

**Quantitative Analysis:** Linear Mixed Effects Models, Survival Analysis, Generalized Linear Models, Analysis of Variance, Time Series Modeling and Forecasting

**Research Methods:** Randomized Controlled Trials, Quantitative and Qualitative Survey Design, Grounded Theory, Heuristic Evaluation

**Programming Languages:** Python, R, Javascript, Java, HTML5, SQL + BigQuery

## Education

### University of California Santa Cruz

Expected 2019

Ph.D. Computer Science

Relevant Graduate Coursework: Machine Learning, Deep Learning, User Testing and Evaluation, Computational Models of Discourse and Dialog, Crowdsourcing

### Eastern Mennonite University

April 2013

B.S. Computer Science; Mathematics Minor

Honors Program; GPA 3.75/4.0 – Cum Laude

## Selected Publications

**Aaron Springer**, Henriette Cramer. “Play PRBLMS”: Identifying and Correcting Less Accessible Content in Voice Interfaces. *CHI* 2018.

**Aaron Springer**, Victoria Hollis, Steve Whittaker. Mood Modeling: Accuracy Depends on Active Logging and Reflection. *Personal and Ubiquitous Computing*. 2018.

Dhanya Sridhar, **Aaron Springer**, Victoria Hollis, Steve Whittaker, Lise Getoor. Estimating Causal Effects of Exercise from Mood Logging Data. *ICML Workshop on Machine Learning for Causal Inference*. 2018.

**Aaron Springer**, Jean Garcia-Gathright, Henriette Cramer. Assessing and Addressing Algorithmic Bias—But Before We Get There... *AAAI UXofAI*. 2018.

**Aaron Springer**, Steve Whittaker. What Are You Hiding? Algorithmic Transparency and User Perceptions. *AAAI UXofAI*. 2018.

## Leadership Experience

UCSC Graduate Student Commons President	2017-2018
UCSC Graduate Student Commons Vice President	2016-2017
NCWIT Invited Change Leader Scholar	2016
UCSC Graduate Student Commons Governance Board Member	2015-Present
Mentor for 1st year STEM students	2012-2013
BLAST Program Middle School Mathematics Tutor	2014
Teaching Assistant for 6 different programming courses	2014-Present
Vice President Student ACM Chapter	2012-2013