

Emma Pierson

EDUCATION

<i>PhD</i> , Computer Science, Stanford University	2015 - Present
<i>MS by Research</i> , Statistics, Oxford University	2014 - 2015
<i>MS</i> , Computer Science, Stanford University Concentrations in Artificial Intelligence and Biocomputation, GPA: 4.03/4.00	Winter 2013 - Spring 2013
<i>BS</i> , Physics (with distinction), Stanford University Concentration in Theoretical Physics, GPA: 3.97/4.00	Fall 2009 - Spring 2013

Graduate level background in machine learning and artificial intelligence. Biocomputation, computer systems, algorithms, scientific simulations. Python/Matlab (most comfortable), C/C++, Java, Mathematica, R, JavaScript, HTML, D3, PHP.

For a current list of academic and non-academic publications, please see <http://cs.stanford.edu/people/emmap1/>

HONORS

Hertz Fellow	2014
NDSEG Fellow	2014
NSF Graduate Research Fellow (declined)	2014
Gates-Cambridge Scholarship Finalist (withdrew from consideration)	2013
Rhodes Scholar	2013
Marshall Scholar (declined)	2013
Deans' Award, Stanford (awarded to 5-10 undergraduates for "outstanding academic contributions")	2013
2nd place, US National Debate Championships	2013
3rd place, Kaggle Job Recommendation Engine Competition (\$2,000)	2012
Levinthal Tutorial Recipient, Non-fiction Writing, Stanford	2011
National Merit Scholar	2009
Presidential Scholar Candidate	2009
Semifinalist, United States Physics Olympiad	2008
Semifinalist, United States Biology Olympiad	2008
5-time American Invitational Mathematics Exam Qualifier	2005-2009

EXPERIENCE

<i>Freelance Writer</i>	Winter 2013 – Present
<ul style="list-style-type: none">Published essays in the <i>New York Times</i>, the <i>Atlantic</i>, <i>Wired</i>, the <i>Washington Post</i>, and FiveThirtyEight, among others.	
<i>Researcher</i> , 23andMe	Fall 2013 – Fall 2014
<ul style="list-style-type: none">Performed analyses of genetic and phenotypic information.	
<i>Data Analyst</i> , Coursera	Summer 2013
<ul style="list-style-type: none">Performed statistical analyses to aid Coursera's mission of providing free online education: modeled the role of education in democratic development, ways of increasing gender equity, and ways of improving	

peer grading, among others.

- Built tools for data export to facilitate research in educational institutions around the world.

Researcher, Koller Biocomputation Lab

Summer 2012– Summer 2013

- Created an algorithm to learn genetic networks informed by tissue hierarchies. Methods were more accurate than previous methods and applicable to any hierarchical dataset. Journal paper published.
- Performed statistical network analysis and discovered principles of tissue specificity.

Researcher, Goodman Cognitive Psychology Lab

Winter 2012 – Summer 2013

- Performed psychological surveys and built a mathematical model of how people value information. Journal paper published.
- Essay published in *New York Times* Science section and Well Blog (“Knowing You Carry a Cancer Gene”); awarded “Best Blog Post of 2012” by the organization Cancer101

Used collaborative filtering to predict job applications

Fall 2012

- Placed 3rd out of 83 international teams in the Kaggle Job Recommendation Engine Competition, winning \$2,000.

Researcher, Burchat Cosmology Lab, Stanford

Summer 2011– Spring 2012

- Developed two clustering algorithms for identifying red-sequence galaxies that improved upon labeling by a human expert; presented research to department.

Levinthal Tutorial, Stanford

Spring 2011

- One of ten Stanford students awarded a tutorial in non-fiction writing.

LEADERSHIP

Live-in Counselor, Bridge Peer Counseling Center

Summer 2011 – Summer 2013

- One of four students selected to lead the Bridge, Stanford’s Volunteer Student Organization of the Year in 2012, as a live-in counselor; provided psychological counseling to Stanford students between 12 AM and 9 AM, advised and supported Bridge staff, made leadership decisions in collaboration with campus psychologists
- Performed a statistical analysis of calls; reported for the first time on the periods when suicide calls were most likely to occur, on the counselors who were most effective, and on the factors explaining their success. Research presented to campus psychological health authorities and incorporated into Stanford’s core Psychology curriculum. Created computer program to allow non-statisticians to automatically perform future analyses.

President, Stanford Debate Society

2012

- Managed a \$300,000 budget, recruited two world-class coaches; awards at national and international competitions, including the World Championships, the North American Championships, the US Championships, Harvard, and Yale (2009-2013)