Ming Yin

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RESEARCH Interests

Social computing and crowdsourcing, human computation, artificial intelligence and applied machine learning, computational social science, human-computer interaction, behavior economics.

EDUCATION

Harvard University, Cambridge, MA, USA Ph.D. Candidate in Computer Science Master of Science in Computer Science

Sep 2011 – May 2017 (expected)

Advisor: Yiling Chen

City University of Hong Kong, Hong Kong, China Aug 2009 – Dec 2009 Undergraduate Exchange Student in Computer Science

Tsinghua University, Beijing, China Bachelor of Engineering in Computer Software Aug 2007 - Jul 2011

May 2013

Honors and Awards Siebel Scholar, the Siebel Foundation, Class of 2017

Best Paper Honorable Mention, CHI, 2016 NSF Student Travel Award, AAMAS, 2015

Certificate of Distinction in Teaching, Derek Bok Center for Teaching and Learning, Harvard University, 2013

Graduate Student Fellowship, SEAS, Harvard University, 2011

Outstanding Graduate of Beijing, Beijing Municipal Commission of Education, 2011

Outstanding Graduate of Tsinghua University, Tsinghua University, 2011 Tsinghua's Friend – Widjaja Scholarship, Tsinghua University, 2009

National Southwest Associated University Scholarship, Tsinghua University, 2008

EXPERIENCE

${\bf Harvard\ University},\ {\bf Cambridge},\ {\bf MA}$

Aug 2011 – Present

Research Assistant, EconCS group, School of Engineering and Applied Sciences

Work with Prof. Yiling Chen to advance the fundamental understandings and designs of social computing and crowdsourcing systems, both through large-scale online behavioral experiments to obtain insights on the human behavior in these systems, and by applying AI and machine learning techniques in the crowdsourcing context to facilitate intelligent designs.

Microsoft Research New England, Cambridge, MA

Aug 2016 – Oct 2016

Research Intern, Social Media Collective

 Worked with Dr. Mary L. Gray and Dr. Siddharth Suri on measuring the value that crowd workers attach to their labor beyond the immediate price-per-task payment, with a focus on examining the impact of in-task flexibility on worker engagement, performance and behavior.

Microsoft Research New York City, New York, NY

Jun 2015 – Aug 2015

Research Intern, Computational Social Science Group

• Worked with Dr. Siddharth Suri and Dr. Jennifer Wortman Vaughan on mapping and analyzing the communication network within the crowd of more than 10,000

workers on the leading crowdsourcing platform Amazon Mechanical Turk.

PARC, Webster, NY

Jun 2014 – Aug 2014

Research Intern, Collective Intelligence and Service Computing Group

• Worked with Dr. Yu-An Sun to understand and quantitatively model human decision-making behavior in real-life domains such as healthcare (e.g. whether to participate in health screening test) and energy (e.g. periodic choices on electricity tariff schemes).

Xerox Research, Webster, NY

Jun 2013 - Aug 2013

Research Intern, Social and Web Technology Group

• Worked with Dr. Yu-An Sun on analyzing the tradeoff and recommending a selection between a reseller and a multi-sided platform for a service market.

Baidu Inc., Beijing, China

Mar 2011 - Jul 2011

Research Intern, Ads Research Team

• Worked with Dr. Yuhong Zhou on optimal reserve price setting and updating in sponsored search auctions.

Tsinghua University, Beijing, China

Mar 2009 – Mar 2011

Undergraduate Researcher, Bioinformatics Group, Department of Automation

• Worked with Prof. Rui Jiang on disease biomarker identification.

City University of Hong Kong, Hong Kong, China

Aug 2009 – Dec 2009

Visiting Researcher, Network Economics Group, Department of Computer Science

• Worked with Prof. Xiaotie Deng on multi-slots ads auction mechanism design.

PUBLICATIONS

Conference Papers

Ming Yin, Yiling Chen. Predicting Crowd Work Quality under Monetary Interventions. In *Proc. of the 4th AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, Austin, TX, October 30 – November 3, 2016.

Edith Law, **Ming Yin**, Joslin Goh, Kevin Chen, Michael Terry, Krzysztof Z. Gajos. Curiosity Killed the Cat, but Makes Crowdwork Better. In *Proc. of the 34th ACM Conference on Human Factors in Computing Systems (CHI)*, San Jose, CA, May 2016. (**Best Paper Honorable Mention**)

Ming Yin, Mary Gray, Siddharth Suri, Jennifer Wortman Vaughan. The Communication Network Within the Crowd. In *Proc. of the 25th International World Wide Web Conference (WWW)*, Montreal, Canada, April 2016.

Ming Yin, Yiling Chen. Bonus or Not? Learn to Reward in Crowdsourcing. In *Proc. of the 24th International Joint Conference on Artificial Intelligence (IJCAI)*, Buenos Aires, Argentina, July 2015.

Ming Yin, Yu-An Sun. Human Behavior Models for Virtual Agents in Repeated Decision Making under Uncertainty. In *Proc. of the 14th International Conference on Autonomous Agents & Multiagent Systems (AAMAS)*, Istanbul, Turkey, May 2015.

Ming Yin, Yiling Chen, Yu-An Sun. Monetary Interventions in Crowdsourcing Task Switching. In *Proc. of the 2nd AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, Pittsburgh, PA, November 2014.

Ming Yin, Yiling Chen, Yu-An Sun. The Effects of Performance-Contingent Financial Incentives in Online Labor Markets. In *Proc. of the 27th Conference on Artificial Intelligence (AAAI)*, Bellevue, WA, July 2013.

Yang Sun, Yunhong Zhou, **Ming Yin**, Xiaotie Deng. On the Convergence and Robustness of Reserve Pricing in Keyword Auctions. In *Proc. of the 14th International Conference on Electronic Commerce (ICEC)*, Singapore, August 2012.

Ming Yin, Peibei Shi, Wangshu Zhang, Rui Jiang. Optimizing subnetwork markers for the classification of breast cancer metastases: A simulated annealing strategy. In *Proc. of 2011 International Conference on Medical Information and Bioengineering (ICMIB)*, Chengdu, China, January 2011.

Xiaotie Deng, Yang Sun, **Ming Yin**, Yunhong Zhou. Mechanism design for multi-slot ads auction in sponsored search markets. In *Proc. of the 4th International Frontiers in Algorithmics Workshop (FAW)*, Wuhan, China, August 2010.

Posters and Extended Abstracts

Edith Law, **Ming Yin**, Joslin Goh, Kevin Chen, Michael Terry, Krzysztof Z. Gajos. Curiosity Killed the Cat, but Makes Crowdwork Better. In *the 2016 Conference on Digital Experimentation (CODE)*, Cambridge, MA, October 2016.

Mary Gray, Siddharth Suri, **Ming Yin**, Jennifer Wortman Vaughan, Syed Shoaib Ali, Deepti Kulkarni. The Collaboration and Communication Networks within the Crowd. In the 2016 International Conference on Computational Social Science (IC2S2), Evanston, IL, June 2016.

Ming Yin, Yiling Chen, Yu-An Sun. Task Sequence Design: Evidence on Price and Difficulty. In the 1st AAAI Conference on Human Computation and Crowdsourcing (HCOMP), Palm Springs, CA, November 2013. (Work in progress track)

Patents

Method and Apparatus for Recommending a Selection between a Reseller and a Multisided Platform, with Yu-An Sun, US Patent Application Number 14/161393.

TEACHING

Guest Lecturer, Harvard University

Spring 2015

CS 280r (Advanced Topics in Artificial Intelligence), led the discussion on "Crowd-sourcing Complex Tasks".

Teaching Fellow, Harvard University

Fall 2013, Fall 2014

• CS182 (Intelligent Machines: Reasoning, Actions and Plans)

Teaching Fellow, Harvard University

Spring 2013

• AM121 (Introduction to Optimization: Models and Methods)

INVITED TALKS

Boston University, Boston, MA, November 2016. Image and Video Computing Seminar. Designing Incentives for Humans in the Loop.

LEADERSHIP AND SERVICE

Conference/Workshop Organizing Committees

The AAAI Conference on Human Computation and Crowdsourcing, HCOMP 2017, Website Co-chair

Designing for Curiosity: an Interdisciplinary Workshop, CHI 2017, Co-organizer

Reviewer

ACM Conference on Human Factors in Computing Systems (CHI), 2017, 2014

ACM Conference on Economics and Computation (EC), 2016

ACM Conference on Computer-Supported Cooperative Work (CSCW), 2015

The Conference on Web and Internet Economics (WINE), 2012

The World Wide Web Conference (WWW), 2011

The International Colloquium on Automata, Languages and Programming (ICALP), 2010

ACM Transactions on Intelligent Systems and Technology (TIST)

Student Organizer

Harvard EconCS Seminar 2013 – 2014

Graduate Student Mentor

SEAS Connect Program, Harvard University	2013 - 2014
GSAS Host Student Program, Harvard University	2012 - 2013

President

Student Association of Science and Technology (SAST), School of Software, Tsinghua University 2010-2011

References

Yiling Chen

Gordon McKay Professor of Computer Science, John A. Paulson School of Engineering and Applied Sciences, Harvard University. yiling@seas.harvard.edu

Barbara J. Grosz

Higgins Professor of Natural Sciences, John A. Paulson School of Engineering and Applied Sciences, Harvard University.

grosz@eecs.harvard.edu

Siddharth Suri

Senior Researcher, Microsoft Research, New York City. suri@microsoft.com

Mary L. Gray

Senior Researcher, Microsoft Research, New England; Associate Professor, The Media School, Indiana University.

 ${\rm mlg@microsoft.com}$

Jennifer Wortman Vaughan

Senior Researcher, Microsoft Research, New York City. jenn@microsoft.com

Edith Law

Assistant Professor, David R. Cheriton School of Computer Science, University of Waterloo.

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