Stanford

Mehran Sahami

Tencent Chair of the of the Computer Science Department, James and Ellenor Chesebrough Professor and Senior Fellow, by courtesy, at the Freeman Spogli Institute for International Studies

Bio

BIO

Mehran Sahami is Tencent Chair of the Computer Science Department and the James and Ellenor Chesebrough Professor in the School of Engineering. As a Professor (Teaching) in the Computer Science department, he is also a Bass Fellow in Undergraduate Education and previously served as the Associate Chair for Education in Computer Science. Prior to joining the Stanford faculty, he was a Senior Research Scientist at Google. His research interests include computer science education, artificial intelligence, and ethics. He served as co-chair of the ACM/IEEE-CS joint task force on Computer Science Curricula 2013, which created curricular guidelines for college programs in Computer Science at an international level. He has also served as chair of the ACM Education Board, an elected member of the ACM Council, and was appointed by California Governor Jerry Brown to the state's Computer Science Strategic Implementation Plan Advisory Panel.

ACADEMIC APPOINTMENTS

- Professor (Teaching), Computer Science
- Senior Fellow (By courtesy), Freeman Spogli Institute for International Studies
- Faculty Affiliate, Institute for Human-Centered Artificial Intelligence (HAI)

ADMINISTRATIVE APPOINTMENTS

- Chair, Computer Science Department, (2023- present)
- Associate Chair for Education, Computer Science Department, (2007-2022)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Co-Chair, ACM Education Board (2014 - 2018)
- Advisory Board, Code.org (2013 - present)

PROGRAM AFFILIATIONS

- Symbolic Systems Program

PROFESSIONAL EDUCATION

- PhD, Stanford University , Computer Science (1999)

Teaching

COURSES

2023-24

- Computational Decision Making: CS 29N (Win)

- Programming Methodology: CS 106A (Spr)

2022-23

- Additional Topics in Teaching Computer Science: CS 198B (Win, Spr)
- Ethics, Public Policy, and Technological Change: COMM 180, CS 182, ETHICSOC 182, PHIL 82, POLISCI 182, PUBLPOL 182 (Win)
- Ethics, Public Policy, and Technological Change (WIM): CS 182W (Win)
- Programming Methodology: CS 106A (Spr)
- Teaching Computer Science: CS 198 (Aut, Win, Spr)

2021-22

- Additional Topics in Teaching Computer Science: CS 198B (Win, Spr)
- Ethics, Public Policy, and Technological Change: COMM 180, CS 182, ETHICSOC 182, PHIL 82, POLISCI 182, PUBLPOL 182 (Win)
- Ethics, Public Policy, and Technological Change (WIM): CS 182W (Win)
- Problem-solving Lab for CS106A: CS 100A (Spr)
- Programming Methodology: CS 106A (Spr)
- Teaching Computer Science: CS 198 (Aut, Win, Spr)

2020-21

- Additional Topics in Teaching Computer Science: CS 198B (Aut, Win, Spr)
- Ethics, Public Policy, and Technological Change: COMM 180, CS 182, ETHICSOC 182, PHIL 82, POLISCI 182, PUBLPOL 182 (Win)
- Ethics, Public Policy, and Technological Change (WIM): CS 182W (Win)
- Problem-solving Lab for CS106A: CS 100A (Aut)
- Programming Methodology: CS 106A (Aut)
- Teaching Computer Science: CS 198 (Aut, Win, Spr)

STANFORD ADVISEES

Master's Program Advisor

Winson Cheng, Star Doby, Kyla Guru, Kris Jeong, Aarushi Majumder, Janelle Rudolph, Zane Sabbagh, Brian Wu

Publications

PUBLICATIONS

- **Should the AP Computer Science A Exam Switch to Using Python**
  Sahami (Moderator), M., Astrachan, O., Czajka, S., Decker, A., Rosato, J., ACM
  ASSOC COMPUTING MACHINERY.2022: 1015-1016
- **Wrestling with Retention in the CS Major: Report from the ACM Retention Committee**
  Miller, A., Alvarado, C., Sahami, M., Villa, E., Zweben, S., Assoc Comp Machinery
  ASSOC COMPUTING MACHINERY.2019: 807–8
- **Challenges and Approaches for Data Collection to Understand Student Retention**
  Walker, H. M., Sahami, M., Alvarado, C., Assoc Comp Machinery
  ASSOC COMPUTING MACHINERY.2018: 1062
- **Five Slides About: Abstraction, Arrays, Uncomputability, Networks, Digital Portfolios, and the CS Principles Explore Performance Task**
  Lewis, C. M., Aaronson, L., Allatta, E., Dodds, Z., Forbes, J., McMullen, K., Sahami, M., Assoc Comp Machinery
  ASSOC COMPUTING MACHINERY.2018: 269–70
- **TMOSS: Using Intermediate Assignment Work to Understand Excessive Collaboration in Large Classes**

Yan, L., McKeown, N., Sahami, M., Piech, C., Assoc Comp Machinery
ASSOC COMPUTING MACHINERY.2018: 110–15

- **Programming Pluralism: Using Learning Analytics to Detect Patterns in the Learning of Computer Programming** *JOURNAL OF THE LEARNING SCIENCES*
  Blikstein, P., Worsley, M., Piech, C., Sahami, M., Cooper, S., Koller, D.
  2014; 23 (4): 561-599
- **Reflections on Stanford's MOOCs** *COMMUNICATIONS OF THE ACM*
  Cooper, S., Sahami, M.
  2013; 56 (2): 28-30
- **Special Session: The CS2013 Computer Science Curriculum Guidelines Project** *43rd Annual Frontiers in Education Conference (FIE)*
  Roach, S., Sahami, M., LeBlanc, R., Seker, R.
  IEEE.2013
- **The 'Big Tent' of Computer Science: Curricula for the Coming Decade.** *Journal of Computing Sciences in Colleges*
  Sahami, M.
  2012; 27 (4)
- **Computer Science: Update on the Strawman Report from the ACM/IEEE-CS Task Force.**
  Sahami, M., Roach, S., Cuadros-Vargas, E., Reed, D.
  2012
- **Special Session -- The CS2013 Computer Science Curriculum Guidelines Project.**
  Roach, S., Sahami, M., LeBlanc, R.
  2012
- **EAAI-10: The First Symposium on Educational Advances in Artificial Intelligence** *AI MAGAZINE*
  desJardins, M., Sahami, M., Wagstaff, K.
  2011; 32 (1): 91-92
- **Computer Science Curriculum 2013: Reviewing the Strawman Report from the ACM/IEEE-CS Task Force** *43rd ACM Technical Symposium on Computer Science Education (SIGCSE 2012)*
  Sahami, M., Roach, S., Cuadros-Vargas, E., Reed, D.
  ASSOC COMPUTING MACHINERY.2011: 3–4
- **Setting the Stage for Computing Curricula 2013: Computer Science - Report from the ACM/IEEE-CS Joint Task Force** *42nd ACM Technical Symposium on Computer Science Education*
  Sahami, M., Guzdial, M., McGettrick, A., Roach, S.
  ASSOC COMPUTING MACHINERY.2011: 161–162
- **Modeling How Students Learn to Program** *43rd ACM Technical Symposium on Computer Science Education (SIGCSE 2012)*
  Piech, C., Sahami, M., Koller, D., Cooper, S., Blikstein, P.
  ASSOC COMPUTING MACHINERY.2011: 153–158
- **Special Session - The CS2013 Computer Science Curriculum Guidelines Project** *41st Annual Frontiers in Education Conference (FIE)*
  Sahami, M., Roach, S., LeBlanc, R.
  IEEE.2011
- **A Course on Probability Theory for Computer Scientists** *42nd ACM Technical Symposium on Computer Science Education*
  Sahami, M.
  ASSOC COMPUTING MACHINERY.2011: 263–268
- **Educational Advances in Artificial Intelligence** *42nd ACM Technical Symposium on Computer Science Education*
  Sahami, M., desJardins, M., Dodds, Z., Neller, T.
  ASSOC COMPUTING MACHINERY.2011: 81–82
- **Expanding the Frontiers of Computer Science: Designing a Curriculum to Reflect a Diverse Field** *41st ACM Technical Symposium on Computer Science Education*
  Sahami, M., Aiken, A., Zelenski, J.

ASSOC COMPUTING MACHINERY.2010: 47–51

- **Nifty assignments.**
  Parlante, N., Murtagh, T., P., Sahami, M., Astrachan, O., L., Reed, D., Stone, C., A.
  2009

- **Reports of the AAAI 2008 Spring Symposia** *AI MAGAZINE*
  Balduccini, M., Baral, C., Brodaric, B., Colton, S., Fox, P., Gutelius, D., Hinkelmann, K., Horswill, I., Huberman, B., Hudlicka, E., Lerman, K., Lisetti, C., McGuinness, et al
  2008; 29 (3): 107-115

- **Google TV search: dual-wielding search and discovery in a large-scale product.**
  Patel, M., Gossweiler, R., Sahami, M., Blackburn, J., Brown, D., Knight, A.
  2008

- **A Web-based Kernel Function for Measuring the Similarity of Short Text Snippets.**
  Sahami, M., Heilman, T., D.
  2006

- **Combinatorial Markov Random Fields.**
  Bekkerman, R., Sahami, M., Learned-Miller, E.
  2006

- **Semi-supervised Clustering using Combinatorial MRFs.**
  Bekkerman, R., Sahami, M.
  2006

- **Mining the Web to Determine Similarity Between Words, Objects, and Communities.**
  Sahami, M.
  2006

- **Scaling Computer Science Education to Education on Scaling in Computer Science.** *White Paper presented at Workshop on Integrative Computing Education & Research (ICER): Preparing IT Graduates for 2010 and Beyond*
  Sahami, M.
  2006

- **Evaluating Similarity Measures: A Large-Scale Study in the Orkut Social Network.**
  Spertus, E., Sahami, M., Buyukkokten, O.
  2005

- **Adaptive Product Normalization: Using Online Learning for Record Linkage in Comparison Shopping.**
  Bilenko, M., Basu, S., Sahami, M.
  2005

- **Efficient Face Orientation Discrimination.**
  Baluja, S., Sahami, M., Rowley, H.
  2004

- **The Happy Searcher: Challenges in Web Information Retrieval.**
  Sahami, M., Mittal, V., Baluja, S., Rowley, H.
  2004

- **QProber: A system for automatic classification of hidden-Web databases** *ACM TRANSACTIONS ON INFORMATION SYSTEMS*
  Gravano, L., Ipeirotis, P. G., Sahami, M.
  2003; 21 (1): 1-41

- **Query- vs. Crawling-based Classification of Searchable Web Databases.** *In IEEE Data Engineering Bulletin*
  Gravano, L., Ipeirotis, P., Sahami, M.
  2002; 1 (25)

- **Probe, count, and classify: Categorizing hidden-web databases** *ACM SIGMOD International Conference on Management of Data*

Ipeirotis, P. G., Gravano, L., Sahami, M.
ASSOC COMPUTING MACHINERY.2001: 67–78

- **PERSIVAL: Categorizing Hidden-Web Resources.**
  Ipeirotis, P., Gravano, L., Sahami, M.
  2001
- **Automatic Classification of Text Databases Through Query Probing.**
  Ipeirotis, P., Gravano, L., Sahami, M.
  2000
- **Integrating Data Mining into Vertical Solutions.** *In SIGKDD Explorations*
  Kohavi, R., Sahami, M.
  2000; 2 (1): 55-58
- **A Bayesian Approach to Filtering Junk E-Mail.** *In Learning for Text Categorization: Papers from the 1998 Workshop. AAAI Technical Report WS-98-05*
  Sahami, M., Dumais, S., Heckerman, D., Horvitz, E.
  1998
- **SONIA: A Service for Organizing Networked Information Autonomously.**
  Sahami, M., Yusufali, S., Baldonado, M., W.Q.
  1998
- **Inductive learning algorithms and representations for text categorization.**
  Dumais, S., T., Platt, J., Heckerman, D., Sahami, M.
  1998
- **A Probabilistic Approach to Full-Text Document Clustering.** *Technical Report ITAD-433-MS-98-044, SRI International.*
  Goldszmidt, M., Sahami, M.
  1998
- **Lazy acquisition of place knowledge** *ARTIFICIAL INTELLIGENCE REVIEW*
  Langley, P., Pfleger, K., Sahami, M.
  1997; 11 (1-5): 315-342
- **Hierarchically Classifying Documents Using Very Few Words.**
  Koller, D., Sahami, M.
  1997
- **Real-time Full-text Clustering of Networked Documents (Abstract).**
  Sahami, M., Yusufali, S., Baldonado, M., W.Q.
  1997
- **Applications of Machine Learning to Information Access.**
  Sahami, M.
  1997
- **Generating neural networks through the induction of threshold logic unit trees** *ENGINEERING APPLICATIONS OF ARTIFICIAL INTELLIGENCE*
  Sahami, M.
  1996; 9 (2): 129-136
- **Applying the Multiple Cause Mixture Model to Text Categorization.**
  Sahami, M., Hearst, M., Saund, E.
  1996
- **Toward Optimal Feature Selection.**
  Koller, D., Sahami, M.
  1996
- **Learning Limited Dependence Bayesian Classifiers.**
  Sahami, M.

1996

- **Error-Based and Entropy-Based Discretization of Continuous Features.**
  Kohavi, R., Sahami, M.
  1996

- **Generating neural networks through the induction of threshold logic unit trees** *8th European Conference on Machine Learning*
  Sahami, M.
  SPRINGER-VERLAG BERLIN.1995: 339–342

- **Generating Neural Networks Through the Induction of Threshold Logic Unit Trees (Extended Abstract).**
  Sahami, M.
  1995

- **Supervised and Unsupervised Discretization of Continuous Features.**
  Dougherty, J., Kohavi, R., Sahami, M.
  1995

- **Learning classification rules using lattices** *8th European Conference on Machine Learning*
  Sahami, M.
  SPRINGER-VERLAG BERLIN.1995: 343–346

- **LEARNING NONLINEARLY SEPARABLE BOOLEAN FUNCTIONS WITH LINEAR THRESHOLD UNIT TREES AND MADALINE-STYLE NETWORKS** *11th National Conference on Artificial Intelligence (AAAI-93)*
  Sahami, M.
  M I T PRESS.1993: 335–341