Ashish Goel is a Professor of Management Science and Engineering and (by courtesy) Computer Science at Stanford University. He received his PhD in Computer Science from Stanford in 1999, and was an Assistant Professor of Computer Science at the University of Southern California from 1999 to 2002. His research interests lie in the design, analysis, and applications of algorithms.

ACADEMIC APPOINTMENTS
- Professor, Management Science and Engineering
- Professor (By courtesy), Computer Science
- Member, Bio-X
- Faculty Affiliate, Institute for Human-Centered Artificial Intelligence (HAI)
- Member, Institute for Computational and Mathematical Engineering (ICME)

HONORS AND AWARDS
- Sloan Research Fellowship, Alfred P. Sloan Foundation
- Frederick E. Terman Fellow, Stanford University
- CAREER Award, National Science Foundation (2002)

PROFESSIONAL EDUCATION
- PhD, Stanford University, Computer Science (1999)

LINKS
- https://web.stanford.edu/~ashishg/ashishg.html

Teaching

COURSES
2023-24
• Advanced Applied Optimization: MS&E 214 (Spr)
• Artificial Intelligence and Deliberative Democracy: MS&E 10SC (Sum)
• Computational Social Choice: CS 366, MS&E 336 (Win)
• Optimization and Algorithmic Paradigms: CS 261 (Aut)

2022-23
• Algorithms for Decentralized Finance: MS&E 339 (Aut)
• Artificial Intelligence and Deliberative Democracy: MS&E 10SC (Sum)
• Introduction to Optimization: ENGR 62, MS&E 111, MS&E 211 (Win)

2021-22
• Bridging Policy and Tech Through Design: CS 184 (Spr)
• Computational Social Choice: CS 366, MS&E 336 (Aut)
• Introduction to Optimization: ENGR 62, MS&E 111, MS&E 211 (Win)
• Optimization and Algorithmic Paradigms: CS 261 (Spr)

2020-21
• How We Decide: Social Choice in the Age of Algorithms: MS&E 33N, POLISCI 33N (Aut)
• Introduction to Optimization: ENGR 62, MS&E 111, MS&E 211 (Spr)
• Optimization and Algorithmic Paradigms: CS 261 (Win)

STANFORD ADVISEES

Doctoral Dissertation Advisor (AC)
Mohak Goyal, Zhihao Jiang, Sahasrajit Sarmasarkar

Master's Program Advisor
Elaine Chang, Eric Gao, Andrew Hong, Sri Jaladi, Trevor Leon, Emily Molins, Dev Narang, Yusra O, Ethan Yuen

Doctoral (Program)
Nishka Arora, Wenqian Xing

Publications

PUBLICATIONS

• Opinion Change or Differential Turnout: Austin’s Budget Feedback Exercise and the Police Department EAAMO '22: Equity and Access in Algorithms, Mechanisms, and Optimization
  Gelauff, L. L., Goel, A.
  2022

• Fast Incremental and Personalized PageRank. To appear in VLDB
  Bahmani, B., Chowdhury, A., Goel, A.
  2011

• Liquidity in Credit Networks: A Little Trust Goes a Long Way. Preliminary version presented at NetEcon
  Dandekar, P., Goel, A., Govindan, R., Post, I.
  2010

• Similarity Search and Locality Sensitive Hashing using TCAMs. ACM SIGMOD
  Shinde, R., Goel, A., Gupta, P., Dutta, D.
  2010
- Hybrid keyword search auctions.  
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  2009

- An incentive-based architecture for social recommendations. *RecSys*  
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- Towards programmable molecular machines. *Presented (by Holin) at FNANO*  
  Chen, H., De, A., Goel, A.  
  2008

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  Enachescu, M., Wang, M., Goel, A.  
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- Advertisement Allocation for Generalized Second Pricing Schemes. *fourth Workshop on Ad Auctions*  
  Goel, A., Mahdian, M., Nazerzadeh, H., Saberi, A.  
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- Toward Minimum Size Self-Assembled Counters. *and journal of natural compting*  
  Goel, A., Moisset de espanes, P.  
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- Self-Assembling Tile Systems that Heal from Small Fragments. *Presented at the thirteenth International meeting on DNA based computers (DNA), (winner of the best student paper award – congratulations, Holin and Chris).*  
  Chen, H., Goel, A., Luhrs, C., Winfree, E.  
  2007

- Asking the right questions: Model-driven Optimization using Probes.  
  Goel, A., Guha, S., Munagala, K.  
  2006

- Pricing for fairness: distributed resource allocation for multiple objectives.  
  Cho, S., Goel, A.  
  2006

- Truthful auctions for pricing search keywords.  
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  2006

- Avoiding ballot-stuffing in eBay-like reputation systems. *Third international workshop on economics of peer-to-peer systems*  
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  2005

- Multi-processor scheduling to minimize flow time with #-resource augmentation.  
  Chekuri, C., Goel, A., Khanna, S., Kumar, A.  
  2004

- Optimal self-assembly of counters at temperature two.  
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- Invadable Self-Assembly: Combining Robustness with Efficiency.  
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• Sharp thresholds for monotone properties in random geometric graphs. 
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• The Design of a Distributed Rating Scheme for Peer-to-peer Systems. *Workshop on Economic Issues in Peer-to-Peer Systems*
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• Simultaneous Optimization for Concave Costs: Single Sink Aggregation or Single Source Buy-at-Bulk.
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• Energy-efficient Broadcast in Wireless Ad-hoc Networks: Lower bounds and Algorithms. *Journal of Interconnection Networks*
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• Using the Small-World Model to Improve Freenet Performance. *IEEE Infocom*
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- **Using approximate majorization to characterize protocol fairness.** *This is the full version of a poster paper in ACM SIGMETRICS, and does not actually appear in print anywhere.*
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- **Combining Fairness with Throughput: Online Routing with Multiple Objectives.**
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- **Stochastic Analysis of Stable Marriages in Combined Input Output Queued Switches.**
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- **Scheduling Data Transfers in a Network and the Set Scheduling Problem.**
  Goel, A., Henzinger, M., R., Plotkin, S., Tardos, E.
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- **Stochastic Load Balancing and Related Problems.** *In IEEE Foundations of Computer Science*
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  1998

- **Online Throughput-Competitive Algorithm for Multicast Routing and Admission Control.**
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- **Rounding via trees: deterministic approximation algorithms for group Steiner trees and k-median.**
  Goel, A., Charikar, M., Chekuri, C., Guha, S.
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- **Approximation Algorithms for Directed Steiner Problems.**
  Goel, A., Charikar, M., Chekuri, C., Cheung, T., Dai, Z., Guha, S.
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