

KHASHAYAR KHOSRAVI

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EDUCATION

- Stanford University**, Stanford, US, September 2014-September 2019 GPA:4.09/4
Ph.D., Electrical Engineering, *Advisor: Mohsen Bayati*
Dissertation: Learning, Decision-Making, and Inference with Limited Experimentation
Master of Science, Electrical Engineering, June 2016
- Sharif University of Technology**, Tehran, Iran, September 2009-2014 GPA: 18.33/20
Bachelor of Science, Electrical Engineering
Bachelor of Science, Mathematics

EXPERIENCE

- Google Research** April 2020-Now
AI Resident New York, NY
- Working on research problems related to optimization and machine learning.
- Stanford University** September 2019-April 2020
Lecturer Stanford, CA
- Co-taught two core MBA classes OIT 245 and OIT 367 to MBA students.
- Microsoft Research** June 2018-September 2018
Research Intern Cambridge, MA
- Worked on problems at the intersection of machine learning and econometrics under the supervision of Vasilis Syrgkanis and Greg Lewis.
- Adobe Inc.** June 2016-September 2016
Machine Learning Scientist Intern San Jose, CA
- Built a new algorithm and implemented it for Adobe Target A/B testing platform. Reducing the sample size required for the experiments by about 50%.
- Ecole Polytechnique Federale de Laussane** July 2013-September 2013
Summer Intern Laussane, Switzerland
- Worked on *Satisfiability of randomly coupled K-SAT* and *Performance of LDPC codes over BEC relay channels via message passing decoders* under the supervision of Prof. Ruediger Urbanke.

RESEARCH INTERESTS

Contextual multi-armed bandits, causal inference, sequential and data-driven decision-making, statistics, machine learning

DISTINCTIONS

- **6th** rank in the EE PhD qualifying exam (among 90 students), Stanford University, February 2015.
- **Stanford EE Departmental Fellowship**, September 2014.
- **Gold** medal in 50th International Mathematical Olympiad (IMO), Germany, July 2009.

WORKING PAPERS

- **Optimal and Greedy Algorithms for Multi-Armed Bandits with Many Arms**
(with Mohsen Bayati, Nima Hamidi, and Ramesh Johari)
- **Non-Parametric Inference Adaptive to Intrinsic Dimension**
(with Greg Lewis and Vasilis Syrgkanis)
Oral Spotlight at NeurIPS 2019 CausalML Workshop
- **Matrix Completion Methods for Causal Panel Data Models**, [Link to the Github repository](#)
(with Susan Athey, Mohsen Bayati, Nickolay Doudchenko, and Guido Imbens)
Major Revision at Journal of American Statistical Association (JASA)

PUBLISHED PAPERS

- **Mostly Exploration-Free Algorithms for Contextual Bandits**
(with Hamsa Bastani and Mohsen Bayati)
Management Science (forthcoming)
- **Multiclass Classification, Information, Divergence, and Surrogate Risk**
(with John Duchi and Feng Ruan)
Annals of Statistics 46(6B):3246-3275, 2018
- **Tying Word Vectors and Word Classifiers: A Loss Framework for Language Modeling**
(with Hakan Inan and Richard Socher)
International Conference on Learning Representations (ICLR), 2017
- **Finding the Winner of a Hypothesis Test via Sample Allocation Optimization**
(with Kouros Modarresi)
Procedia Computer Science, Elsevier, Vol. 108, 2017
- **Steganographic Schemes with Multiple q -ary Changes per Block of Pixels**
(with Iman Gholampour)
Elsevier Journal of Signal Processing, Vol. 108, March 2015
- **Interpolation of Steganographic Schemes**
(with Iman Gholampour)
Elsevier Journal of Signal Processing, Vol. 98, May 2014

TEACHING

Stanford Graduate School of Business

Instructor

Stanford, CA

- *Business Intelligence from Big Data* (OIT 367), Winter 2020 (co-teaching with Prof. Mohsen Bayati)
- *Optimization and Simulation Modeling* (OIT 245), Fall 2019 (co-teaching with Prof. Kostas Bimpikis)

Stanford University

Teaching Assistant

Stanford, CA

- *Business Intelligence from Big Data* (OIT 367), Prof. Mohsen Bayati, Winter 2018
- *Convex Optimization I* (EE364A), Prof. Stephen Boyd, Winter 2016

TALKS

Mostly Exploration-Free Algorithms for Contextual Bandits

(with Hamsa Bastani and Mohsen Bayati)

- INFORMS Applied Probability Society Conference, Evanston, July 2017
- OIT Brown Bag Lunch Seminar, Stanford, May 2018

M&SOM Conference, Dallas, July 2018
INFORMS Annual Meeting 2018, Phoenix, Nov. 2018
RM&P Conference, Stanford, June 2019
MLSE Conference, Atlanta, June 2019
INFORMS Annual Meeting 2019, Seattle, Nov. 2019

Matrix-Completion Methods for Causal Panel Data Models

(with Susan Athey, Mohsen Bayati, Nikolay Doudchenko, and Guido Imbens)

INFORMS Annual Meeting 2018, Phoenix, Nov. 2018
INFORMS Healthcare Conference, Cambridge, July 2019
INFORMS Annual Meeting 2019, Seattle, Nov. 2019

Optimal and Greedy Algorithms for Multi-Armed Bandits with Many Arms

(with Mohsen Bayati, Nima Hamidi, and Ramesh Johari)

INFORMS Annual Meeting 2019, Seattle, Nov. 2019

PATENTS

- Kouros Modarresi, and **Khashayar Khosravi**, “*Performance-Based Digital Content Delivery in a Digital Medium Environment*”, Filed 2017, Published 2019, Pub. Number: US20190043077 A1
- Kouros Modarresi, and **Khashayar Khosravi**, “*Optimal Detection of the Winning Offers in a Campaign*”, Filed 2016, Published 2018, Pub. Number: US20180130090 A1

COMPUTER SKILLS

C++, Python, R, Tensorflow, Matlab, Mathematica , L^AT_EX.

REFERENCES

Available upon request.