

Nikhil Garg

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EDUCATION

Stanford University, August 2015 - Present

Stanford, CA

PhD Candidate, Electrical Engineering, (Advisors: Ashish Goel & Ramesh Johari)

MS, Electrical Engineering, 2017

Funded by NSF Graduate Research Fellowship

University of Texas at Austin, May 2015

Austin, TX

BS, Electrical and Computer Engineering, Highest and Special Honors

BA, Plan II Honors (Liberal Arts)

Thesis: User Association in Dense Next-Generation Wireless Networks (Advisor: Jeff Andrews)

Project: ProjectAlexandria.net: Book Recommendation & Exploration Engine (Advisor: Constantine Caramanis)

INDUSTRY EXPERIENCE

Microsoft

Software Development Engineering Intern, Bing Ads

Bellevue, WA

May 2014 - August 2014

NASA Glenn Research Center

Research Associate, NASA Space Academy

Cleveland, OH

June 2013 - August 2013

RESEARCH EXPERIENCE

Implementable Algorithms for Social Choice

PhD Research Assistant under Prof. Ashish Goel

Stanford

September 2015 - Present

Designing Online Markets

PhD Research Assistant under Prof. Ramesh Johari

Stanford

June 2016 - Present

Wireless Networks and Communications Group

Research Assistant under Prof. Jeffrey Andrews

UT Austin

August 2014 - May 2015

Mobile and Pervasive Computing Group

Research Assistant under Prof. Christine Julien

UT Austin

January 2012 - May 2013

Autonomous Vehicles Lab, Learning Agents Research Group

Student - Freshmen Research Initiative

UT Austin

January 2012 - May 2012

POLICY EXPERIENCE

IEEE-USA Insight Magazine

Monthly Column Writer

August 2015 - December 2015

IEEE-USA, Washington Internship for Students of Engineering Program

Technology Policy Associate

Washington, DC

June 2015 - August 2015

Texas Senate

Legislative Intern, State Senator Davis's Legislative Office

Austin, TX

August 2013 - December 2013

Strauss Center for International Security and Law

Scholar, Next Generation Scholars Program

UT Austin

August 2013 - May 2014

TEACHING EXPERIENCE

Department of Electrical & Computer Engineering

Teaching Assistant for EE 306 (Intro to Computing) under Prof. Yale Patt

UT Austin

August 2013 - December 2013

Department of Mathematics

Learning Assistant for Integral Calculus

UT Austin

January 2012 - May 2012

PROFESSIONAL & RESEARCH ACTIVITIES

Fellowships

- *National Science Foundation Graduate Fellowship, 2015-2018*
- *Stanford McCoy Center for Ethics in Society Graduate Fellow, 2017-2018*

Talks

- *Rating Systems for Online Platforms: A Design via Comparisons, INFORMS, 2017*
- *Designing Reputation Systems for Online Platforms: Pairwise Comparisons, Marketplace Innovation Workshop, 2017*
- *Reputation, Trust, and Markets, Stanford MS&E 190, 2017*
- *Pairwise Comparisons for Online Reputation Systems (Poster), Stanford Computer Forum, 2017*
- *Collaborative Optimization for Collective Decision Making in Continuous Spaces, WWW, 2017*
- *Impact of Dual Slope Path Loss on User Association in HetNets, Globecom Workshop on HetNets, 2015*

Reviewing

- PC Member, WWW 2018 Big Web Track
- Markets for Good's *Good Data Grant*, 2016

Organization

- Stanford Social Algorithms (SOAL) Seminar, 2017-2018
- Stanford Research on Algorithms, Incentives, and Networks (RAIN) Seminar, 2016-2017
- Stanford EE Admit Visit Day Committee, 2017
- UT Austin HKN Honor Society Student Chapter, 2013-2014
- UT Austin IEEE Computer Society Student Chapter, 2011-2013

Consulting Activities

- **Jet Blue Technology Ventures**, *Machine Learning Due Diligence*, 2017 - Present
- **SNCF**, *Machine Learning/Digitalization*, 2017
- **DAS Worldwide | Wireless Everywhere**, *Wireless Engineering and Strategy*, 2016-2017

PUBLICATIONS

Working Papers

2. NG, Johari, R. "Designing Rating Systems on Online Platforms," *In Submission*.
1. NG, Goel, A., Plaut, B. "Markets for Public Decision-making," *In Submission*.

Journal Articles

1. NG, Schiebinger, L., Jurafsky, D., Zou, J. "Word Embeddings as a Lens to Quantify 100 Years of Gender and Ethnic Stereotypes," *Proceedings of the National Academy of Sciences*, *Accepted*.

Conference

3. NG, Kamble, V., Goel, A., Marn, D., & Munagala, K. (2017). "Collaborative Optimization for Collective Decision-making in Continuous Spaces. In Proceedings of the 26th International Conference on World Wide Web.
2. NG, Singh, S., & Andrews, J. (2015). "Impact of Dual Slope Path Loss on User Association in HetNets." In 2015 IEEE Globecom Workshops (GC Wkshps) (pp. 1–6).
1. Lewandowski, B., Fortier, K., NG, Rielly, V., Mackey, J., Hearn, T., ... Fenton, B. "Use of electroencephalography and galvanic skin response in the prediction of an attentive cognitive state," presented at the Health and Human Performance Research Summit, Dayton, CO, 2015.

Other

4. NG (2015). "Fair Use and Innovation in Unlicensed Wireless Spectrum: LTE unlicensed and Wi-Fi in the 5 GHz unlicensed band," IEEE-USA, Journal of Technology and Public Policy.
3. NG. "Comments of Nikhil Garg: A Doctrine of Fair Use of Unlicensed Bands." Federal Communications Commission ET Docket No. 15-105 (LTE Unlicensed Docket), 26 Jun. 2015.
2. NG (2015). "Downlink and Uplink User Association in Dense Next-Generation Wireless Networks," Bachelors Thesis, University of Texas at Austin, Austin, TX.
1. Fortier, K., NG, and Pickering, E. (2013). "Multi-Modal, Multi-State, Real-Time Crew State Monitoring System," NASA Glenn Research Center, Space Academy Research Report.

RELEVANT COURSEWORK

Graduate Courses (Stanford)

Advanced Algorithms for Machine Learning, Reinforcement Learning, Deep Learning for NLP, Statistical Learning Theory, Approximation Algorithms, Convex Optimization, Statistical Signal Processing, Linear Dynamical Systems, Wireless Communications, Law Order & Algorithms, Theory of Probability

Graduate Courses (UT Austin)

Probability & Stochastic Processes, Wireless Communications, Information Theory, Digital Communications

Undergraduate Courses (UT Austin)

Real Analysis, Algorithms, Digital Signal Processing, Real-time DSP Lab, Digital Image and Video Processing, Embedded and Real-Time Operating Systems Lab, Computer Architecture, Digital Logic Design, Foreign Policy, Philosophy, Economics

TECHNICAL SKILLS

General Machine Learning, Deep Learning, Software, Optimization, Mechanism Design, Signal Processing, Communications, Robotics, Web development

Languages & Tools Python, TensorFlow, C, C++, Java, Julia, MATLAB, JavaScript

LANGUAGES

English Native

Hindi Fluent

Spanish Read/Understand