Reihane Boghrati

Department of Marketing
University of Pennsylvania
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Research Interests

◇ Computational Marketing, Natural Language Processing, Machine Learning

Education

◇ **Ph.D. in Computer Science** Aug. 2013 – Aug. 2018
Department of Computer Science
University of Southern California, Los Angeles, California, United States
Dissertation Title: Conversation Level Syntax Similarity Metric
Supervisor: Morteza Dehghani

◇ **B.Sc. Software Engineering** Sept. 2009 – June 2013
Department of Computer Engineering
Sharif University of Technology, Tehran, Iran
Dissertation Title: Empirical Study and Analysis of Programmers Behavior While Doing the Monkey See, Monkey Do Operation
Supervisor: Abbas Heydarnoori

Academic Experience

◇ **Postdoctoral Scholar** Sept. 2018 - Present
Department of Marketing
Wharton School of University of Pennsylvania

Working Papers

◇ Quantifying 50 Years of Misogyny in Music. With Jonah Berger.

◇ How to Come Across as an Authentic as a Leader? Disclose Your Foibles. With Leslie John, Li Jiang, Maryam Kouchaki, and Francesca Gino.

Work in Progress

◇ Scientific Articles Textual Features and Their Success. With Jonah Berger and Grant Packard.

◇ Conversational Dynamics: Driving Factors to Keep Conversations Alive. With Jonah Berger.

◇ Emotion Tracking Over Time. With Marissa Sharif, Arsalan Heydarian, and Siavash Yousefi.

Honors and Awards

◇ Acceptance to doctoral consortium of EMNLP 2016 workshop on Natural Language Processing and Computational Social Science.

◇ NSF travel grant recipient to attend EMNLP 2016, Austin, TX.

◇ USC GHC, WiSE, and GSC travel scholarship recipient to attend GHC 2013, GHC 2014, CogSci 2016, and IJCAI 2016.

◇ Honorary admission to Sharif University of Technology for graduate studies in AI, 2013.

Publications

◇ K. Johnson, R. Boghrati, C. Wakslak, M. Dehghani, *"Measuring Abstract Mindsets through Syntax: Automating the Linguistic Category Model with the Syntax-LCM"*, Social Psychological and Personality Science (2019).

◇ S. Sachdeva, R. Boghrati, M. Dehghani, *"Testing the Influence of Purity-Based Interventions on Pro-environmental Behavior"*, Sustainability 11.6 (2019): 1811.

◇ R. Boghrati, J. Hoover, K. M. Johnson, J. Garten, M. Dehghani, *"Conversation Level Syntax Similarity Metric"*, Behavior Research Methods (2017): 1-19.

◇ M. Dehghani, R. Boghrati, K. Man, J. Hoover, S. I. Gimbel, A. Vaswani, A. S. Gordon, A. Damasio, J. T. Kaplan, *"Decoding the Neural Representation of Story Meanings across Languages"*, Human Brain Mapping (2017): 38(12), 6096-6106.

◇ R. Boghrati, J. Garten, M. Dehghani, *"Syntactic Alignment in Power Relations"*, Accepted at Workshop on Natural Language Processing and Computational Social Science, ACL 2017.

- J. Garten, J. Hoover, K. M. Johnson, R. Boghrati, C. Iskiwitch, M. Dehghani, *"Dictionaries and Distributions: Combining Expert Knowledge and Large Scale Textual Data Content Analysis"*, Behavior Research Methods (2017): 1-18.
- J. Hoover, K. Johnson, R. Boghrati, J. Graham, M. Dehghani, *"Moral Framing and Charitable Donation: Integrating exploratory social media analyses and confirmatory experimentation"*, Collabra: Psychology, 4(1).
- R. Boghrati, K. M. Johnson, M. Dehghani, *"Generalized Representation of Syntactic Structures"*, Proceedings of CogSci 2017.
- K. M. Johnson, R.Boghrati, M. Dehghani, *"Measuring Abstract Mindsets through Syntax: Improvements in Automating the Linguistic Category Model"*, Proceedings of CogSci 2017.
- R. Boghrati, J. Hoover, K. Johnson, J. Garten, M. Dehghani, *"Syntax Accommodation in Social Media Conversations"*, Proceedings of CogSci 2016.
- J. Garten, R. Boghrati, J. Hoover, K. M. Johnson, M. Dehghani, *"Morality Between the Lines: Detecting Moral Sentiment in Text"*, Proceedings of IJCAI 2016 workshop on Computational Modeling of Attitudes.
- M. Dehghani, K. Johnson, J. Garten, R. Boghrati, J. Hoover, et al., *"TACIT: An Open-Source Text Analysis, Crawling, and Interpretation Tool"*, Behavior Research Methods (2016): 1-10.
- R. Boghrati, J. Garten, A. Litvinova, M. Dehghani, *"Incorporating Background Knowledge into Text Classification"*, Proceedings of CogSci 2015.
- Sh. Ghandeharizade, R. Boghrati, S. Barahmand, *"An Evaluation of Alternative Physical Graph Data Designs for Processing Interactive Social Networking Actions"*, Proceedings of TPCTC 2014.
- R. Boghrati, A. Heydarnoori, M. Kazemitabaar, *"Programmers Activities While Performing the Monkey See, Monkey Do Rule: Analysis of an empirical study"*, Proceedings of SAC 2014.
- R. Alizadehsani, J. Habibi, M. J. Hosseini, H. Mashayekhi, R. Boghrati, A. Ghandeharioun, B. Bahadorian, Z. A. Sani, *"A data mining approach for diagnosis of coronary artery disease"*, Computer methods and programs in biomedicine, Vol. 111, No. 1 (2012): 52-61.
- R. Alizadehsani, J. Habibi, Z. A. Sani, H. Mashayekhi, R. Boghrati, A. Ghandeharioun, F. Khozeimeh, F. Alizadeh-Sani, *"Diagnosing Coronary Artery Disease via Data Mining Algorithms by Considering Laboratory and Echocardiography Features"*, Res Cardiovasc Med J, Vol. 1, No. 4 (2012).
- R. Alizadehsani, M. J. Hosseini, R. Boghrati, A. Ghandeharioun, F. Khozeimeh, Z. A. Sani, *"Exerting Cost-Sensitive and Feature Creation Algorithms for Coronary Artery Disease Diagnosis"*, International Journal of Knowledge Discovery in Bioinformatics (IJKDB), Vol. 3, no. 1 (2012): 59-79.
- R. Alizadehsani, M. J. Hosseini, Z. A. Sani, A. Ghandeharioun, R. Boghrati, *"Diagnosis of Coronary Artery Disease Using Cost-Sensitive Algorithms"*, Proceeding of ICDM 2012 Workshop on Biological Data Mining and its Applications in Healthcare.
- R. Alizadehsani, J. Habibi, M. J. Hosseini, R. Boghrati, A. Ghandeharioun, B. Bahadorian, Z. A. Sani, *"Diagnosis of Coronary Artery Disease Using Data Mining Techniques Based on Symptoms and ECG Features"*, European Journal of Scientific Research, Vol. 82, No. 4 (2012): 542-553.
- R. Alizadehsani, J. Habibi, B. Bahadorian, H. Mashayekhi, A. Ghandeharioun, R. Boghrati, Z. A. Sani, *"Diagnosis of Coronary Arteries Stenosis Using Data Mining"*, Journal of medical signals and sensors, Vol. 2, No. 3 (2012): 57-65.
- R. Alizadehsani, J. Habibi, Z. A. Sani, H. Mashayekhi, R. Boghrati, A. Ghandeharioun, B. Bahadorian, *"Diagnosis of Coronary Artery Disease Using Data mining based on Lab Data and Echo Features"*, Journal of Medical and Bioengineering, Vol. 1, No. 1 (2012): 26-29.

Research Experience

- Research Scientist intern at *Microsoft Research* Summer 2018

  During my internship I surveyed active learning methods in natural language processing and designed and developed a new approach which increased learning rate of LUIS, a language understating tool.

- Research Scientist intern at *Recruit Institute of Technology* Summer 2017
  I designed and developed a general framework for goal-oriented chatbots with a focus on having an optimized and natural conversation flow. While this framework can be easily extended to build any goal-oriented chatbot, I showed its applicability in a recipe-bot which assists users to find recipes by asking relevant questions.
- Software Engineer intern at *Zenzi Communication* Summer 2015 and Summer 2016
  I built a tool for Zenzi's value marketing research to measure Schwartz' value loadings from text. The tool was written in Python with a user-friendly interface.
- *Computational Social Science Laboratory* at University of Southern California
  Under supervision of Prof. Dehghani May 2014 - May2018
  Relying on natural language processing methods, a priori hypothesis, and behavioral experiments, we aim to explore cognitive and psychological traces in artifacts of social discourse (such as narratives, social media, political speeches, and news articles) and measure complex psychologically-relevant variables in a manner that enables inferential testing.
- *Database Laboratory* at University of Southern California
  Under supervision of Prof. Ghandeharizadeh August 2013 - May 2014
  For those applications whose read ratio is larger than write, it seems reasonable to store results of queries in cache so that the application will see faster performance. The issue which rise up here is how to keep RDBMS consistent with cache.
- Bachelor's Thesis: Empirical Study and Analysis of Programmers' Behavior While Doing the Monkey See, Monkey Do Operation at Sharif University of Technology
  Under supervision of Dr. Heydarnoori March 2013 - August 2013
  To reduce the time and cost of implementing new concepts, programmers often refer to existing sample codes. This is called the Monkey See, Monkey Do rule in software engineering literature. We analyzed the activities programmers perform to achieve a successful use of this rule.
- *Performance Evaluation Software Engineering Laboratory* at Sharif University of Technology
  Under Supervision of Prof. Jafar Habibi February 2012 - June 2013
  Present methods for CAD diagnosis are costly, time-consuming, and hazardous. We used various data mining methods and hundreds of patients' medical information to address this issue.

Teaching Experience

- Advance Big Data Methods at the University of Southern California Fall 2016
- Introduction to Programming at the University of Southern California Fall 2013, Spring 2014
- System Analysis and Design at the Sharif University of Technology Fall 2012
- Fundamentals of Programming at the Sharif University of Technology Fall 2011, Fall 2012

Professional Skills

- Proficient in Python, Java, R, C++
- Familiar with C, MySQL, HTML, CSS, PHP, JavaScript, Assembly, MATLAB, Verilog, LISP