

## Soheil (Sol) Sadeghi

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PROFESSIONAL EXPERIENCE	<b>Data Scientist at Microsoft</b> Azure Cloud and AI Group	2017–current
	<b>Data Scientist Intern at Microsoft</b> Worked on a productivity power metric for engineering systems	2016
	<b>Data Scientist Intern at @Walmartlabs</b> Worked on the cannibalization problem for Sam's Club data	2015
	<b>Statistical Analyst Intern at Nail Iran Co.</b> A leading international manufacturer of MERIC lamps	2010
	<b>Executive Manager of Khabarnameh</b> A quarterly published by Department of Industrial Engineering, Sharif University of Technology	2008–2009
EDUCATION	<b>University of Wisconsin-Madison</b> , Madison, Wisconsin, USA Department of Statistics Doctor of Philosophy, <b>Major:</b> Statistics, <b>Minor:</b> Computer Science, Final GPA: 3.8/4.0	2013–2017
	<b>University of Florida</b> , Gainesville, Florida, USA Department of Statistics Master of Statistics, Final GPA: 3.9/4.0	2011–2013
	<b>Sharif University of Technology</b> , Tehran, Iran Department of Industrial Engineering Bachelor of Science, Final GPA: 17.6/20.0	2007–2011
ACADEMIC TALKS	<b>Math Sciences at The University of Memphis (ICODOE 2019)</b> Novelty and learning effects in online experiments	2019
	<b>UCLA Department of Statistics (DAE 2017 Conference)</b> Sliced designs for multi-platform online experiments	2017
	<b>UT-Dallas Naveen Jindal School of Management (Bass FORMS Conference)</b> Sliced designs for multi-platform online experiments	2017
	<b>Stanford Graduate School of Business (Digital Marketing Conference)</b> Sliced designs for multi-platform online experiments	2016
	<b>Wisconsin School of Business</b> Cannibalization project with Sam's Club data	2016
	Introduction to R and its role in Marketing research	2016
	Machine learning applications in Marketing	2015

PUBLICATIONS	Sadeghi, S., Chien, P., and Arora, N. (2019). <b>Sliced Designs for Multi-platform Online Experiments</b> , <i>Technometrics</i> , (just-accepted), pp. 1-34		
	Sadeghi, S. and Carey, J. (2017). <b>Phase-based Cyclic Time Series Forecasting</b> , <i>Microsoft Journal of Applied Research (MSJAR)</i>		
	Sadeghi, S. and Mahlooji, H. (2010). <b>A New Approach in Fitting Linear Regression Models with the Aim of Improving Accuracy and Power</b> , <i>Journal of Industrial and Systems Engineering (JISE)</i> , Volume 4, Number 2, pp. 95-113		
WORKING PAPERS	Hung, T., Sadeghi, S., Chien, P., and Arora, N. <b>Sliced Minimum Aberration Designs for Four-platform Experiments</b>		
	Mahmoudzadeh, A., Liu, S., and Gupta, S., Sadeghi, S., and Li, P. <b>In Theory and in Practice: Trade-Offs Between Bounded and Open Data Inclusion Approaches for Large Scale Digital Controlled Experiments</b>		
HONORS AND ACHIEVEMENTS	<b>Research and Graduate Program Fellowship (Grinter Award)</b> , and <b>Outstanding Academic Achievement Certificate</b> , University of Florida, 2011–2013		
	Ranked <b>1st</b> among <b>80</b> students in Department of Industrial Engineering, and awarded direct entrance to the graduate program with full scholarship by Dean of Graduate Studies at Sharif University of Technology, 2010		
	Ranked <b>311th</b> among more than <b>300,000</b> students in the nationwide University Admission Examination ( <b>99</b> Percentile), 2007		
TEACHING EXPERIENCE	<b>University of Wisconsin-Madison</b>		
	<b>4.7/5.0</b> with <b>90+</b> reviews on <b>ratemyprofessors.com</b> : <a href="http://www.ratemyprofessors.com/soheilsadeghi">www.ratemyprofessors.com/soheilsadeghi</a>		
	<b>Teaching Assistant</b> for Stat610, Introduction to Statistical Inference (size:50), <b>Eval: 4.8/5.0</b>		2017
	<b>Teaching Assistant</b> for Stat371, Introduction to Applied Statistics (size:150), <b>Eval: 4.7/5.0</b>		2013–2015
	<b>Teaching Assistant</b> for Stat311, Introduction to Math. Statistics (size:120), <b>Eval: 4.2/5.0</b>		2014
	<b>Teaching Assistant</b> for Stat301, Introduction to Statistical Methods (size:25), <b>Eval: 4.1/5.0</b>		2013–2014
	<b>University of Florida</b>		
	<b>Instructor</b> for STA3032, Engineering Statistics (size:70), <b>Eval: 4.0/5.0</b>		2013
	<b>Instructor</b> for STA3024, Introduction to Statistics II (size:250), <b>Eval: 3.3/5.0</b>		2013
	<b>Teaching Assistant</b> for STA2023, Introduction to Statistics I (size:50), <b>Eval: 3.2/5.0</b>		2011–2012
SKILLS	<b>Statistical Packages:</b> R		
	<b>Programming:</b> Python		

SELECTED PROJECTS	<b>User Experience</b>	2019
	Measuring the holistic health of user experience on Windows devices using hardware, application, and diagnostic data	
	<b>Experimentation</b>	2018
	Detecting, estimating, and correcting for the novelty and learning effects in online experiments which reduces the experimental bias and contributes to trustworthiness of experimentation	
	<b>Time Series</b>	2017
	Worked on a productivity power metric with cyclical patterns for the engineering systems to provide a higher quality Windows service to customers	
	<b>Testing and Optimization</b>	2016
	Efficient statistical designs for A/B testing and multivariate testing while dealing with large number of potential factors across different platforms	
	<b>Data Division</b>	2015
	Optimal division of large and complex datasets into homogeneous batches and allocation to different servers in order to do parallel computing	
	<b>Cannibalization and Halo Effect</b>	2015
	Scalable assessment of cross category promotion effects using Machine Learning applied to a large and complex dataset from Sam's Club	
	<b>Search Engine Optimization</b>	2014
	Keyword optimization on a complex dataset from Google AdWords and designing experiments to fill empty spaces in order to improve conversion profitability	
	<b>Predictive Modeling</b>	2014
	Predictive response modeling effort in between two waves of mailings to QuickBooks customers with the aim of improving wave-two response rates and company profits	
	<b>Ranking Algorithms</b>	2013
	Worked on a dataset from Expedia.com with the aim of learning from consumer behaviors in order to rank hotels across different queries using machine learning algorithms	

## DISSERTATION

### **Sliced Designs for Multi-platform Online Experiments**

Dissertation Committee:

Peter Chien, Neeraj Arora, Kam-Wah Tsui, Anru Zhang, Paul Hoban

Multivariate testing is a popular method to improve websites, mobile apps, and email campaigns. A unique aspect of testing in the online space is that it needs to be conducted across multiple platforms such as a desktop and a smartphone. The existing experimental design literature does not offer precise guidance for such a multi-platform context. In this paper, we introduce a multi-platform design framework that allows us to measure the effect of the design factors for each platform and the interaction effect of the design factors with platforms. Substantively, the resulting designs are of great importance for testing digital campaigns across platforms. We illustrate this in an empirical email application to maximize engagement for a digital magazine. We introduce a novel “sliced effect hierarchy principle” and develop design criteria to generate factorial designs for multi-platform experiments. To help construct such designs, we prove two theorems that connect the proposed designs to the well-known minimum aberration designs. We find that experimental versions made for one platform should be similar to other platforms. From the standpoint of real world application, such homogeneous sub-designs are cheaper to implement. To assist practitioners, we provide two algorithms to construct the designs that we propose. We also tabulate sliced factorial designs with 16, 32, and 64 runs for four-platform experiments.

**Graduate Coursework****Theoretical Statistics**

Course	Instructor	School
Graphical Models	Garvesh Raskutti	UW-Madison
Non-parametric Statistics	Chunming Zhang	UW-Madison
Mathematical Statistics	Yazhen Wang and Jun Shao	UW-Madison
Probability Theory	Andrew Rosalsky	UFlorida
Statistical Inference	Malay Ghosh	UFlorida
Markov Chain Monte Carlo	Hani Doss	UFlorida
Theory of Linear Models	Hani Doss	UFlorida
Theoretical Statistics	Kshitij Khare	UFlorida
Modern Analysis	Paul Robinson	UFlorida

**Applied Statistics**

Course	Instructor	School
Statistical Model Building and Learning	Grace Wahba	UW-Madison
High Dimensional Statistical Inference	Ming Yuan	UW-Madison
Multivariate Analysis	Ming Yuan	UW-Madison
Network Skills for Statistics	Brian Yandell	UW-Madison
Generalized Linear Models	Brett Presnell	UFlorida
Regression Analysis	Larry Winner	UFlorida
Design of Experiments	Larry Winner	UFlorida

**Computer Science**

Course	Instructor	School
Advanced Machine Learning	Jerry Zhu	UW-Madison
Database Management Systems	AnHai Doan	UW-Madison
Algorithms	Deborah Joseph	UW-Madison

**Undergraduate Coursework****Industrial Engineering**

Course	Instructor	School
Simulation and Statistics	Hashem Mahlooji	Sharif UT
Queueing Theory and Probability Models	Mohammad Modarres Yazdi	Sharif UT
Regression Analysis	Seyed Taghi Akhavan Niaki	Sharif UT
Operations Research	Kourosh Eshghi	Sharif UT
Statistical Quality Control	Fereidoon Kianfar	Sharif UT
Probability and Applications	Rasoul Haji	Sharif UT
Engineering Statistics	Hashem Mahlooji	Sharif UT
Linear Algebra	Kourosh Eshghi	Sharif UT
Economics	Mohammad Hadi Chamran	Sharif UT
Principles of Marketing	Hassan Shavandi	Sharif UT
Basic Management	Hassan Shavandi	Sharif UT
Computer Information Systems	Hassan Shavandi	Sharif UT