

## Yuchao Liu

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CONTACT INFORMATION	1 Microsoft Way Redmond WA, 98052	(858)405-7431 <a href="mailto:yuchao.liu@microsoft.com">yuchao.liu@microsoft.com</a>
CURRENT POSITION	Data Scientist, Bing Advertisement Group, Microsoft Corporation	
EDUCATION	<b>University of California, San Diego</b> , La Jolla, CA	
	Ph.D., <b>Mathematics with Statistics Concentration</b> , Sept 2013 - Mar 2018	
	Thesis Title: <i>Detection and Localization of a Submatrix: Theory, Methods and Algorithms</i>	
	Candidacy Oral Test Title: <i>Bisecting Block Models</i>	
	Advisor: <b>Ery Arias-Castro, Ph.D.</b>	
	<b>School of Management, Fudan University</b> , Shanghai, China	
	M.S. Studies, <b>Probability and Mathematical Statistics</b> , Aug 2013	
	Advisor: Xinsheng Zhang, Ph.D.	
	B.S., <b>Statistics</b> , Jul 2011	
	Thesis: Semiparametric Bayesian Regression of Binary Response Model via Mixture of Dirichlet Processes	
	Advisor: Qinfeng Xu, Ph.D.	
	<b>Stanford University</b> , Stanford, CA	
	Exchange student at Statistics Department, Summer, 2011	
RESEARCH EXPERIENCE	<b>Research Assistant</b> Department of Mathematics, UC San Diego Supervisor: Ery Arias-Castro, Ph.D.	Mar 2014 to present
PUBLICATIONS	<ol style="list-style-type: none"><li>1. Arias-Castro, E. and <b>Liu, Y.</b> “<b>Distribution-free Detection of a Submatrix</b>” <i>Journal of Multivariate Analysis</i> 156 (2017): 29-38.</li><li>2. <b>Liu, Y.</b> and Guo J. “<b>Distribution-Free, Size Adaptive Submatrix Detection with Acceleration</b>” Submitted.</li></ol>	
PAPERS IN PREPARATION	<ol style="list-style-type: none"><li>1. <b>Liu, Y.</b> and Arias-Castro, E. “A multiscale scan statistic for adaptive submatrix localization”</li></ol>	
TALKS AND PRESENTATIONS	<ol style="list-style-type: none"><li>1. Southern Cal Machine Learning Symposium, USC</li><li>2. Amazon Graduate Research Symposium, Seattle</li><li>3. Southern Cal Machine Learning Symposium, Caltech</li><li>4. Dept of Statistics, Fudan University, Shanghai, China</li><li>5. Food For Thought Seminar, UC San Diego</li></ol>	<ol style="list-style-type: none"><li>Oct. 2017</li><li>Jan. 2017</li><li>Nov. 2016</li><li>Sept. 2016</li><li>May. 2016</li></ol>
AWARDS	Student Awards — UC San Diego James B. Ax Fellowship	2013

	<p>Student Awards — Fudan University</p> <p>People's Scholarship 2007–2013</p> <p>New Graduate Student Fellowship tier 1 2011</p> <p>Class 88' Fellowship for Outstanding Graduates in Statistics 2011</p> <p>Huo's Scholarship for Stanford Exchange Students 2011</p>
TEACHING EXPERIENCE	<p><b>Teaching Assistant</b> Oct 2013–Present</p> <p>Department of Mathematics, UC San Diego</p> <p>Have been the teaching assistant for courses from freshman calculus to PhD level probability and statistics. Ref: <a href="#">Teaching Page</a> of my website</p>
PAST WORKING EXPERIENCE	<p><b>Research Intern</b>, Mitsubishi Electric Research Lab, Cambridge, MA Jun 2017 – Sept 2017</p> <p>Supervisor: Emil Laftchiev, Ph.D.</p> <p>Design and implement algorithms for problems in time series data analysis</p> <p>Assist in preparing manuscript and publishing research results</p> <p><b>Biostatistics Intern</b>, BioMarin Pharmaceutical, Brisbane, CA Jun 2016 – Aug 2016</p> <p>Supervisor: Gordon Sun, Ph.D. and Xinqun Yang, Ph.D.</p> <p>Help solving biostatistics problems in the process of drug development and result illustration</p> <p>Assist biostatisticians with data modeling and creating effective statistics methodology</p>
OTHER INFORMATION	<p>Programming Skills</p> <p>Python, R, Julia, Minitab, L<sup>A</sup>T<sub>E</sub>X, SAS, C++</p> <p>Membership</p> <p>Institute of Mathematical Statistics</p> <p>American Statistical Association</p> <p>International Chinese Statistical Association</p> <p>Certificates</p> <p>Passed P/FM/MLC/MFE/C and all VEE courses, Society of Actuaries</p> <p>Language Skills</p> <p>Fluent: Chinese, English; Basic: Japanese</p>
REFERENCES	<p>Ery Arias-Castro</p> <p>Professor of Mathematics Phone: 858-534-0584</p> <p>Department of Mathematics E-mail: <a href="mailto:eariasca@ucsd.edu">eariasca@ucsd.edu</a></p> <p>University of California San Diego</p> <p>Jelena Bradic</p> <p>Assistant Professor of Mathematics Phone: 858-534-3992</p> <p>Department of Mathematics E-mail: <a href="mailto:jbradic@ucsd.edu">jbradic@ucsd.edu</a></p> <p>University of California San Diego</p> <p>Kamalika Chaudhuri</p> <p>Associate Professor of Computer Science and Engineering Phone: 858-822-7703</p> <p>Department of Computer Science and Engineering E-mail: <a href="mailto:kamalika@cs.ucsd.edu">kamalika@cs.ucsd.edu</a></p> <p>University of California San Diego</p> <p>Emil Laftchiev</p> <p>Research Scientist Phone: 617-621-7514</p> <p>Data Analytics Group E-mail: <a href="mailto:laftchiev@merl.com">laftchiev@merl.com</a></p> <p>Mitsubishi Electric Research Laboratories</p>