

Yuchao Liu

CONTACT INFORMATION	1 Microsoft Way Redmond WA, 98052	(858)405-7431 yuchao.liu@microsoft.com
CURRENT POSITION	Data Scientist, Bing Advertisement Group, Microsoft Corporation	
EDUCATION	University of California, San Diego , La Jolla, CA Ph.D., Mathematics with Statistics Concentration , 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: Ery Arias-Castro, Ph.D. School of Management, Fudan University , Shanghai, China M.S. Studies, Probability and Mathematical Statistics , Aug 2013 Advisor: Xinsheng Zhang, Ph.D. B.S., Statistics , Jul 2011 Thesis: Semiparametric Bayesian Regression of Binary Response Model via Mixture of Dirichlet Processes Advisor: Qinfeng Xu, Ph.D. Stanford University , Stanford, CA Exchange student at Statistics Department, Summer, 2011	
RESEARCH EXPERIENCE	Research Assistant Department of Mathematics, UC San Diego Supervisor: Ery Arias-Castro, Ph.D.	Mar 2014 to present
PUBLICATIONS	1. Arias-Castro, E. and Liu, Y. “ Distribution-free Detection of a Submatrix ” Journal of Multivariate Analysis 156 (2017): 29-38. 2. Liu, Y. and Guo J. “ Distribution-Free, Size Adaptive Submatrix Detection with Acceleration ” Submitted. 3. E. Laftchiev and Liu, Y. “ Finding Multidimensional Patterns in Multidimensional Time Series ” SIGKDD Workshop on Mining and Learning From Time Series, London UK, 2018.	
PAPERS IN PREPARATION	1. Liu, Y. and Arias-Castro, E. “A multiscale scan statistic for adaptive submatrix localization”	
TALKS AND PRESENTATIONS	1. Southern Cal Machine Learning Symposium, USC 2. Amazon Graduate Research Symposium, Seattle 3. Southern Cal Machine Learning Symposium, Caltech 4. Dept of Statistics, Fudan University, Shanghai, China 5. Food For Thought Seminar, UC San Diego	Oct. 2017 Jan. 2017 Nov. 2016 Sept. 2016 May. 2016
AWARDS	Student Awards — UC San Diego James B. Ax Fellowship	2013

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