

# Yuchao Liu

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## EDUCATION

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- **Department of Mathematics, University of California San Diego** La Jolla, CA  
*PhD, Mathematical Statistics; GPA: 3.98/4.00* Sept. 2013 – Mar. 2018
- **School of Management, Fudan University** Shanghai, China  
*Bachelor of Science / Master of Science in Statistics* Aug. 2007 – July. 2013

## EXPERIENCE

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- **Amazon Inc.** Bellevue WA  
*Research Scientist* Jul 2020 - Present
  - Flex Science team
- **Bing Ads Market Place Services, Microsoft Corporation** Bellevue WA  
*Data Scientist* Apr 2018 - Jul 2020
  - Works on display advertising team of Bing Ads
  - Design and implement machine learning algorithms, data illustration tools, and solves problems using math, statistics and machine learning
- **Mitsubishi Electric Research Labs** Cambridge, WA  
*Research Scientist Intern* Jun 2017 - Sept 2017
  - Design and implement algorithms for problems in time series data analysis
  - Assist in preparing manuscript and publishing research results
- **BioMarin Pharmaceutical** Brisbane, CA  
*Biostatistics Intern* Jun 2016 - Aug 2016
  - Help solving biostatistics problems in the process of drug development
  - Assist biostatisticians with data modeling and creating methodology
- **University of California San Diego** La Jolla, CA  
*Research and Teaching Assistant* Sept 2013 - Mar 2018
  - Have been the teaching assistant for courses from freshman calculus to PhD level probability and statistics.
  - Research project spans from statistics theory to leaning algorithms.

## ACADEMIC PUBLICATIONS

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- **Liu, Y.** and Arias-Castro, E. “A multiscale scan statistic for adaptive submatrix localization” ACM SIGKDD Conference on Knowledge Discovery and Data Mining, Anchorage AK, 2019.
- **Liu, Y.** and Guo J. “Distribution-Free, Size Adaptive Submatrix Detection with Acceleration” ALEA, Latin American journal of probability and mathematical statistics 17 (2020), 309-327.
- E. Laftchiev and **Liu, Y.** “Finding Multidimensional Patterns in Multidimensional Time Series” SIGKDD Workshop on Mining and Learning From Time Series, London UK, 2018.
- Arias-Castro, E. and **Liu, Y.** “Distribution-free Detection of a Submatrix” Journal of Multivariate Analysis 156 (2017): 29-38.

## SKILLS

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- **Programming Languages:** R, Python, C#, SQL, SAS, MATLAB
- **Languages:** Chinese(native), English(fluent), Japanese(Basic)