Ruyu Tan

Education

- 2017-2022 Ph.D. in Applied Mathematics, University of Colorado Boulder, Boulder, CO.
- 2015-2017 M.S. in Statistics, University of California San Diego, La Jolla, CA.
- 2011-2015 B.S. in Mathematics, Lanzhou University, Lanzhou, China.
- 2013-2014 Exchange student, University of Leeds, Leeds, UK, Major: Mathematics.

Experience

- 01/19- Research Assistant, University of Colorado Boulder, Advisor: Vanja Dukic.
- Present Tracking epidemics with Google Flu Trends Data by using state-space SEIR model and sequential online learning algorithm
 - Using model selection to choose the best model to predict and estimate the disease activity levels
- 12/16-05/17 **Part Time biostatistician**, UCSD Shiley-Marcos Alzheimer's Disease Research Center.
 - Transferred and integrated database from archived to current studies, cleaned and merged data
 - Wrote Perl code and created report generator using R and SQL for Stanford ADRC and UCSD ADRC database
 - Wrote R script to upload data for the National Alzheimer's Coordinating Center (NACC submission)
- 06/16-03/17 **Research Intern**, La Jolla Institute for Allergy and Immunology.
 - Developed FitHiC, an R package accepted by Bioconductor on Oct. 2016, which improves the total time up to 50% than the Python version and has been downloaded more than 5500 times.

Tools

Technical Skills Languages

Advanced: Intermediate:	Python, R, SAS, SQL Matlab, Perl, Mathematica	Numpy, Sklearn, ggplot mySQL P. shiny, git
Exposure:	C++	R-shiny, git

Relevant Coursework

Math & Stats

 Time Series, Bayesian Stats, Stat. Collab., Spatial Stat., Markov Processes, Survival Analysis, Multivariate Analysis, Numerical Analysis, Applied Analysis, Discrete Math

Computer Science

 Design and Analysis of Algorithms, Machine learning, Principles of Artificial Intelligence, Web Mining and Recommender Systems