Tianran ZHANG

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Education

Master of Science, Weill Cornell Medicine, New York, NY **Sep 2019 – Present**
Biostatistics and Data Science
Core Courses: Biostatistics I; Data Science I; Study Design

Bachelor of Science, Fudan University, Shanghai, China **Aug 2015 – Jul 2019**
School of Data Science **Aug 2017 – Jul 2019**
Overall GPA: 3.45/4.0
Core courses: Introduction to Artificial Intelligence (4.0/4.0); Numerical Algorithms with Case Studied II (4.0/4.0); Data Mining in Finance and Economics (3.7/4.0).

School of Mathematical Science **Aug 2015 – Jul 2017**
Overall GPA: 3.48/4.0
Core courses: Mathematical Analysis III (4.0/4.0); Advanced Algebra II (4.0/4.0); C Programming (4.0/4.0); Information Literacy and Science Discovery (4.0/4.0)

WORK EXPERIENCE

Quantitative Investment Department at ZHONG OU AMC | Research Assistant **Jul 2018 – Oct 2018**
Advisor: Weiwei Song, Investment Manager, ZHONG OU AMC, Shanghai, China

- ◊ Analyzed the data derived from online database (WRDS) to compare the affection of different factors on market share of 1480 fund companies under different strategies both in America and China.
- ◊ The data wrangling was done by Python, processed both OSL and FGLS regression on panel data with STATA.

RESEARCH EXPERIENCE

Shiny App | Course Project **Oct 2019**
Course Instructor: Prof. Sweeney, Weill Cornell Medicine

- ◊ Designed a shiny app for Happy Valley Meat Company to calculate the environmental impact for each cut of meat. Draw bar plots and word cloud plot to visualize the environment impact with the help of R packages (ggplot, ggplotly, wordcloud).
- ◊ Collaborate with teammates on the projects to share ideas. Mainly in charge of coding part of both ui and server.
- ◊ The shiny.io website can be reached here: https://tianran.shinyapps.io/midterm_project/

3D Free-Form Deformation Based on VTK | Course Project **Jun 2018 – Sep 2018**
Advisor: Xiahai Zhuang, Associate Professor, Assistant Dean, School of Data Science, Fudan University

- ◊ Transformed real-world object's position and shape to present a 3D shape reconstruction.
- ◊ Performed free-form deformations for the 3D Object based on VTK on Python.
- ◊ Collaborated with team members to solve the problems we came across during the project and used matrix calculation to speed up the programming procedure by 5 times.

Experimented with the mixture of Gaussians model | Course Project **Nov 2017 – Jan 2018**
Advisor: Yanwei Fu, tenure-t*rack Professor, School of Data Science, Fudan University*

- ◊ Derived the EM equations for maximizing the likelihood function under Gaussian mixture model, using 300 training examples of handwritten 2's and 3's to train a mixture-of-Gaussians classification model.
- ◊ Applied k-means algorithm and an experiment for local optimal EM parameter settings to finally obtain a 0.55 error rate on the test set.

TECHNICAL SKILLS

Computer	R: Fluently with data wrangling (tidyverse) and data visualization (ggplot2). Python: Fluently with the experience of coding for over 10 projects in the past 2 years. Latex: 2 years' experience with latex writing. (over 10 papers). Basic knowledge of MATLAB, Stata.
Statistics	Solid experience with Statistical models (linear regression, logistic regression, ANOVA), hypothesis test (F-test, t-test), and model selection.
Mathematics	Real & Complex Analysis, Probability Theory, Linear Algebra, Modern Algebra.