

Tengyuan Liang

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EDUCATION

- August 2017-Present** **University of Illinois at Urbana-Champaign**, Urbana-Champaign, IL
College: Liberal Arts and Science
Degree: Bachelor of Science
Double Majors: Economics;
Statistics
GPA: 3.85/4.00
- May 2016-August 2016 (Summer School)** **Boston College**, Chestnut Hill, MA
Major: General Studies
- January 2016-May 2017** **Pine Manor College**, Chestnut Hill, MA
Major: General Studies

COURSE PROJECTS

- University of Illinois at Urbana-Champaign Business Facility Solar Panel Data Preparation—Stat 440—Statistical Data Management** **November 2019-December 2019**
- Diagnosed and removed faulty and missing observations from the Gies Business School solar panel data;
 - Divided the modified data into subsets meaningful for further study;
 - Validated the normality of energy generated variable and fitted linear model with the rest predictors.
- Breast Cancer Diagnosis—Stat 432—Basics of Statistical Learning** **November 2019-December 2019**
- Established linear models with no; RIDGE; and LASSO regulation to classify the stage of the breast tumor based on various tumor-related measurements;
 - Evaluated the models by their accuracy of predicting malignancy when cancer is present.
- Wine Quality Study—Stat 432—Basics of Statistical Learning** **November 2019**
- Regulated the linear regression with RIDGE, LASSO, and Elastic-Net, respectively. Differences in the number of non-zero coefficients and lambdas with minimum mean cross-validated errors are observed and studied.
- Credit Card Fraud Study—Stat 432—Basics of Statistical Learning** **October 2019**
- Calculated sensitivities and specificities generated by different resampling methods under the Stochastic Boosting Method (GBM) and find the resampling method which allows for the highest fraud-detecting rate.
- Heart Disease Study—Stat 432—Basics of Statistical Learning** **October 2019**
- Used Out-of-Bag estimate and cross-validation on Random Forest Classification and K-Nearest-Neighbor Classification, respectively, in an attempt to find the tuning parameters that give the highest accuracy and true positive rate.
- Country Income Study—Stat 420—Methods of Applied Statistics** **July 2019-August 2019**
- Checked for perfect collinearity;
 - Selected variables with stepwise method and by Akaike Information Criterion and Bayesian Information Criterion, respectively;
 - Verified the model's homoscedasticity of variance with fitted-residual plot and Breusch-Pagan test and checked for its normality with Q-Q plot and Shapiro-Wilk test.
- Brazilian Economy Study—Econ 303—Intermediate Macroeconomics** **January 2018**
- Made prediction on Brazil's macroeconomic trend based on various economic indicators (employment rate, inflation rate, and interest rate, etc.) recorded over the past twenty years by the World Bank.

U.S. Military Expense Study—Econ 203—Economics Statistics II November 2017-December 2017

- Explored the relationship between the U.S. military expenses and related factors over the course of thirty years, with the application of introductory statistics knowledge like model-building, model validation, model tuning, and result interpretation.

WORK EXPERIENCE

Bank of China, Yulin branch, Guangxi Autonomous Region, China

May 2018-July 2018

Intern

- Acquire a good understanding about what role bank plays among enterprises;
- Learned how to estimate potential risk of a firm;
- Had a closer look on how change in exchange rate influences the enterprises' behaviors and the demands of certain currency;
- Checked whether export cargo ships violated the international law;
- Gained front desk experience.

Community Service, Boston, MA

September 2016

- Helped host a community activity near UP Academy Holland;
- Arranged the site layout.

Charity Gift Preparation, Cambridge, MA

January 2016

- Prepared Charity gifts for economically struggling children.

HONORS

- Dean's Honors List for three consecutive semesters in the University of Illinois at Urbana-Champaign;
Fall 2017, Spring 2018, Fall 2018
- High Honors of Superior Academic Achievement for three consecutive semesters in Pine Manor College.
Spring 2016, Fall 2016, Spring 2017

SKILLS

Native Mandarin; Fluent English

Economics Skills

- Able to apply economics knowledge and concepts practically;
- Able to establish basic economic model to illustrate relativity and relationship between subjects of study.

Statistics Skills

- Able to establish statistical model and conduct statistical analysis on undergraduate level;
- Able to examine the soundness of the model;
- Able to prepare and process raw data for further analysis;
- Familiar with basic statistical learning in R.

Computer Skills

- Familiar with R, SAS, and simple Python.

HOBBIES

- Good at playing piano;
- Interested in economic policies and online forums like Intelligence Squared Debates.