# Qilin Li

qilinli2021@163.com    (+86) 178-5650-1900

No.96, Jinzhai Road, Baohe District, Hefei, Anhui, 230026, P.R.China

## EDUCATION

**University of Science and Technology of China (USTC)**, Hefei, China                 Sept. 2017 - present

**BS, Major in Statistics** (Expected in July 2021)

➢ GPA: 3.94/4.30, (Weighted Average Score: 91.15/100, Rank: 5/79)

➢ Core Courses in Statistics: Regression Analysis (99/100), Sample Survey (99/100), Probability (95/100), Mathematical Statistics (93/100), Stochastic Process (91/100), Applied Statistical Software (R language) (90/100), Real Analysis (93/100), Complex Analysis (95/100), Partial Differential Equations (90/100)

➢ Core Courses in CS: Data Structures and Database (92/100), Graph Theory (91/100), Computer Programming A (C language) (94/100), Introduction to Computer Systems (H) (86/100), Analog and Digital Circuits (93/100)

## RESEARCH EXPERIENCE

**Community Detection under the Popularity Scaled Latent Space Model**                 Aug. 2020 - present

Advisor: Prof. Weiping Zhang, Department of Statistics and Finance, USTC

➢ Generalized the Popularity Scaled Latent Space Model to display community structure

➢ Proposed a community detection algorithm under the model by maximizing its likelihood modularity

➢ Accelerated algorithm in the context of large networks through resampling

**Social network analysis based on graph algorithms**                 Jun. 2020 - Jul. 2020

Advisor: Prof. Weiping Zhang, Department of Statistics and Finance, USTC

➢ Analyzed a social network in a famous novel with centrality algorithms and community detection algorithms such as PageRank and Spectral Clustering

➢ Proposed more flexible version of Spectral Clustering based on the randomness of Spectral Clustering and ensemble clustering method

**Analysis of Air Pollution in Hebei based on VAR Model**                 May. 2020 - Jun. 2020

Advisor: Prof.Yu Chen, Department of Statistics and Finance, USTC

➢ Fitted vector autoregression (VAR) model to the multivariate time series including data on air pollution, industrial production, transportation and meteorological conditions in Hebei Province, China

➢ Discovered relationship among these factors through Granger causality test and impulse response analysis

➢ Generated a network from the result of the Granger causality test conducted on the air pollution data in different cities; found the most critical city with PageRank algorithm

**A System on Nexy4 Circuit to Play the Video Game Feeding Frenzy**                 Nov. 2019 - Dec. 2019

➢ Designed a system with Nexys4 circuit board and monitor to play video game Feeding Frenzy, programmed by Verilog

**A Movie Recommendation System based on collaborative filtering and K-means**                 May. 2018 - Jun. 2018

➢ Clustered users with K-means algorithm, based on their preference for movies

➢ Predicted and recommended movies to potential users

## EXTRA-CURRICULAR ACTIVITIES

**Group member of Kexing Basketball Game, USTC**                 2017 - present

➢ As starting shooting guard, led team of School of Gifted Young to win the third prize

➢ Organized more than 60 games, trainings and other team activities

**Volunteer Work in USTC**                 Sept. 2018 - Oct.2018

➢ Performed voluntary work during the USTC 60th anniversary

➢ Volunteered to serve at the Qiu Shi Award ceremony hosted by USTC

## AWARDS

Tang Lixin Scholarship (Top 1%)                 2018

Outstanding Student Scholarship (Grade 1) (Top 3%)                 2019

## PERSONAL SKILLS

Computer Skill: C, C++, R, SQL, Latex, Verilog

TOEFL: Total 101 (R:29, L: 23, S: 23, W:26)

GRE: 156+165+3.0