

Yuying Ma

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EDUCATIONAL BACKGROUND

Georgia State University Ph.D. in Mathematics	2023.08 - Present
University of Southern California Master of Arts in Applied Mathematics GPA: 3.48/4.0 <u>Core Module:</u> Applied Probability (A), Methods of Applied Mathematics (A), Numerical Analysis (A), Real Analysis (Master Pass)	2019.08 - 2022.05
Lanzhou University Bachelor of Science in Mathematics and Applied Mathematics GPA: 4.42/5.0 (85.36/100) <u>Core Module:</u> Mathematical Analysis (Avg. 80.7), Advanced Algebra (Avg. 81.5), Probability Theory (81), Functions of Real Variables (87), Operational Research (92), Abstract Algebra (95), Functional Analysis (93), Graph theory (99) <u>Honors:</u> <ul style="list-style-type: none">• Second Prize Scholarship• Third Prize Scholarship• Award "Outstanding Student Leader"	2015.09 - 2019.07

THESIS

The 4-factor-criticality of 5-connected graphs on the torus with large representativity

- Advisor: Qiuli Li in Lanzhou University
- Proved that a 5-connected graph embedded on torus has 4-factor-criticality if and only if the representativity is greater than or equal to 4.
- 'Outstanding Undergraduate Thesis'

PROJECTS

Designing a Hybrid Recommendation System by PySpark Foundations and Applications of Data Mining, USC	2021.05
<ul style="list-style-type: none">▪ Combined Item-based Collaborative Filtering recommendation system with a Model-based recommendation system, constructed a hybrid recommendation system to recommend restaurants to Yelp customers	
The Application of Generalized Linear Models in the Graduation of Life Table Analysis of Variance and Design, USC	2020.05
<ul style="list-style-type: none">▪ Choosing genders and ages as independent variables, used Poisson Linear Regression and Negative Binomial Regression in GLMs to fit crude mortality rates per 100,000▪ Compared the test results of these two regression models and found that the Negative Binomial Regression model is a more suitable one according to the AIC value in this case	
Research on Stressor for People at All Ages	2018.02
<ul style="list-style-type: none">• Collected data by questionnaire, input data into excel, then applied SPSS to analyze the degree of correlation of each data• Divided stressor into six main categories: family, study, job, relationship, financial status, and health per analysis• Displayed proportion of stressor by diagrams per different age groups, offered suggestions and solutions	
Member, China Undergraduate Mathematical Contest in Modelling Pricing Modeling for Network Photographing Services	2017.09
<ul style="list-style-type: none">• Analyzed given data via GPSpg xGeocoding and processed data via K-means and Dirichlet function in SPSS• Programmed Entropy method to calculate the weight of each element via MATLAB	
Solving Multiple Linear Equations by C++ Practice of Computer System and C Language, LZU	2016.06
<ul style="list-style-type: none">• Programmed C++ to determine the data type, call the function library file and specify variables• Employed Gaussian elimination method to figure out the type and evaluation of the solution	

TEACHING EXPERIENCES

Ye Li Guan Central Primary School Volunteer Teacher	2016.07 - 2016.08 Gansu, China
<ul style="list-style-type: none">• Imparted basic theory knowledge of drama to 40 students aged 11 to 13 with varying levels, interests, backgrounds• Displayed classic movies of drama to students, like music drama "Cats" and dance drama "The Magic Flute"• Drafted two campus dramas of 10 to 15 mins, rehearsed them with all students for 8 days, and organized all students to perform successfully in the parents briefing	
Family Math Tutor	2016.04 - 2016.06
<ul style="list-style-type: none">• Checked student's mock examination papers and found out her error-prone points of geometry• Prepared specific lessons of Ellipse, Hyperbola, Parabola, and Circle and their embodiment on the axis based on an examination outline• Explained the connections between questions on paper and specific content to train her thoughts of problem-solving• Increased her math score in the college entrance examination by around 15 points	

SKILLS & CERTIFICATES

- Computer Skills: C++, MATLAB, Python, PySpark, R, SPSS
- Language: Mandarin (Native), English (Fluent)
- Interests: Traditional Chinese painting, Basketball