YIMING LI

■ +1(917)2949193 ■ yl4925@cumc.columbia.edu

100 Haven Ave, NY 10032

EDUCATION

Fudan University (Shanghai, China)   Sept 2017—June 2021

Bachelor of Science in Information and Computing Science(Computing Math)
Courses (grade mark): Numerical Approximation; Computational Methods; Python Programming; Probability Theory; Statistics; Mathematical Analysis

Columbia University   Sept 2021—May 2023
Major: Biostatistics (MS)

HONORS

National Fundamental Sciences Scholarship (This scholarship is issued to students in basic subjects), 2017
Member, Student Union of School of Mathematical Sciences

Student Leader of School of Mathematical Sciences, Fudan University

RESEARCHES

Quantitative Finance Valuation Methods   Sept 2020—Nov 2020
Advisor: Prof. David C. Shimko; New York University
Used BSM method and regression algorithm to analyze the influence of gap option on premium under a fixed strike price
Analyzed the influence of gap (trigger price minus strike price) on premium under random conditions based on Gaussian distribution by using MATLAB
Obtained a three-stage graphic relation and analyzed its rationality

A Spatially Adaptive Edge-Preserving Denoising Method   June 2020-Aug 2020
Advisor: Prof. Xiaoping Li; University of Electronic Science and Technology of China
Proposed new denoising method based on partial differential equation to improve signal to noise ratio in digital signal processing.
Proved the existence and uniqueness of this new denoising method. Compared with previous signal processing methods and found edge information of our method is more sharpened.

Frontiers of Virtual Reality and Perception Technology   July 2018—Aug 2018
Advisor: Prof. Shih-Ching Yeh; Fudan University
Operated VR equipment such as VR helmet, 9-axis sensor, and the processor; learned how to use Unity 3D to build a rigid body model and other fundamental model
Designed and developed a VR car race game based on Unity3D and C#, participated in coding to realize the visual effect of going through a physical model, sensor feedback handling.

INTERNSHIPS

Bond Underwriting Department, China Securities International (Shanghai)   Sept 2020—Nov2020

Learned the knowledge of the fundamental types of bond in China and their registration requirements, including national debt, corporate debt, corporate private equity, short-term bonds, medium-term notes, and financial products from National Association of Financial Market Institutional Investors
Assisted in preparing materials for prospectus review, notified enterprises of approved prospectus

Technology/Product Management Dept., Agriculture Bank of China (Sichuan)   July 2020—Aug 2020

Used SQL to process customer data on Hive and Hadoop platform, called the general bank transaction list, analyzed customer data according to the requirements of the marketing department
Utilized machine learning algorithms such as Kmeans and Logistic Regression to predict tendency of purchasing finance product in September based on purchase records, adjusted model parameters to realize 72 percent accuracy

Marketing Department, Industrial Bank Co., Ltd. (Shanghai)   July 2018—Aug 2018
Learned marketing knowledge, familiarized myself with the company's marketing business
Assisted in establishing private equity and short-term deposit contracts, reviewed the contracts

PUBLICATION

Wang, Dehua, Nieto, Juan J. Li, Xiaoping, Li, Yiming.A Spatially Adaptive Edge-Preserving Denoising Method Based on Fractional-Order Variational PDEs; published in IEEE Access, Volume: 8, Page: 163115-163128; electronic ISSN: 2169-3536

COMPUTER SKILLS

Using R language to complete the work of estimating cell classification by Monte Carlo algorithm.

Using MATLAB to solve the differential equation and approximate the function.

Using Python to complete a variety of deep learning models, such as number recognition.

Using SQL to complete the bank data extraction and cleaning work.

Using C# to completed the game making problem in Unity3D.