YUAN ZHUANG

Address: 38 Tongyan Road, Tianjin, China **Birth:** December 1st, 1999

✉ yuanzhuang@mail.nankai.edu.cn 🏠 https://yuanzhuang.xyz/ ▶ https://youtu.be/EwJYC9jyMEI

EDUCATION

Nankai University, School of Finance　　　　　　　　　　　　　　　　**Sep. 2022 – Jun. 2025**

M.S., Major: Actuarial Sciences, GPA: 94.6/100, Rank:1/165　　　　　　　　　　　　　*Tianjin*

Southwestern University of Finance and Economics, School of Insurance　　**Sep. 2018 – Jun. 2022**

B.S., Major: Actuarial Sciences, GPA: 88.0/100, Rank: 3/46　　　　　　　　　*Chengdu, Sichuan*

PUBLICATIONS

Under Review, or in Press

- Zhang, L., & **Zhuang, Y.** (2025). What KAN Mortality Say: Smooth and Interpretable Mortality Modeling Using Kolmogorov–Arnold Networks. *ASTIN Bulletin* (2nd Revise & Resubmit)
- Luo, L., & Zhang, L., & **Zhuang, Y.** (2025). Assessing Regional Flood Risks under Climate Change: A Machine Learning and Spatial Clustering Approach. *The Geneva Papers on Risk and Insurance - Issues and Practice* (Accepted)

In Journals, with Peer Review

- Zhang, L., & **Zhuang, Y.** (2023). Scenario Analysis of Correlation Matrix for Minimum Capital Requirement of Non-Life Insurance Risk under C-ROSS. *Insurance Studies (In Chinese)*, 202307:3-16.

Book Chapters

- Zhang, L., & **Zhuang, Y.** (2024). *Multiple-State Models*, Chapter 8 in Actuarial Mathematics in Life Insurance: Textbook for China's Association of Actuaries. (Editor: Lianzeng Zhang). China Financial & Economic Publishing House
- Zhang, L., & **Zhuang, Y.** (2024). *Reserving in Non-Life Insurance*, Chapter 4 in Actuarial Mathematics in Non-Life Insurance: Textbook for China's Association of Actuaries. (Editor: Lianzeng Zhang). China Financial & Economic Publishing House
- Zhang, L., & **Zhuang, Y.** (2024). *Annuities*, Chapter 2 in Interest Theory: Textbook for China's Association of Actuaries. (Editor: Lianzeng Zhang). China Financial & Economic Publishing House

CONFERENCE PRESENTATIONS

2024 China Risk and Insurance Symposium　　　　　　　　　　　　　　　　**May. 2024**
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　Wuhan, China

- Title "What KAN Mortality Say: Using KAN to Model Mortality"

2023 CCISSR Forum　　　　　　　　　　　　　　　　　　　　　　　　**August. 2023**
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　Beijing, China

- Title "An Actuarial Evaluation of Financial Subsidies and Raising the Age of Entitlement in Urban and Rural Residence Insurance"

2022 China Forum for Risk Management and Actuarial Science　　　　　　　　**Nov. 2022**
　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　Chengdu, China

- Title "Nearest Correlation Matrix Methods and Minimum Capital Sensitivities"

RESEARCH EXPERIENCE & ACADEMIC PROJECTS

Rate Factors and Risk Prediction of New Energy Automobiles (Tianjin's Graduate Research Program)	2023 – 2024
Mortality under Climate Change: a Machine Learning Perspective (National College Student Training Program)	2020 – 2021
Blockchain in Accounting: a Trust-Cost Perspective (National College Student Training Program)	2019 – 2020

PRIZES IN COMPETITIONS (SELECTED)

First Place in China Re. Case Study Challenge, Title: On Graduation of Mortality in Practice	**Aug. 2023**
Second-Class Prize of Shanghai Smart New Energy Vehicle Big Data Competition	**Dec. 2022**
Finalist in Interdisciplinary Contest In Modeling, Title: Towards Greener and Fairer Food Systems	**May. 2021**
Semi-Finalist in SOA Case Study Challenge, Title: Health Parametric Insurance	**Jan. 2021**
Second Place in CAS China Case Study Challenge, Title: Machine Learning and Pricing Competitiveness	**Nov. 2020**

SCHOLARSHIPS

James C. Hickman Scholarship, Society of Actuaries	**May. 2025**
Tuition Fee Scholarship, UNSW Sydney	**Apr. 2025**
China National Scholarship, Ministry of Education of P.R.C	**Oct. 2023 & Oct. 2024**
First-Class Acadamic Scholarship for M.S., Nankai University	**Oct. 2023 & Oct. 2024**
Freshman Scholarship for M.S., Nankai University	**Oct. 2022**
SINO Life Scholarship, Southwestern University of Finance and Economics	**Jun. 2021**
Scholarship for Actuaries, Southwestern University of Finance and Economics	**May. 2021**
First-Class Scholarship for B.S., Southwestern University of Finance and Economics	**Nov. 2019 & Nov. 2020**

TEACHING SKILLS

Basic Actuarial Science, Best TA Award	**Spring 2024 in Nankai University**
Insurance Investment and Financial Markets, Best TA Award	**Spring 2024 in Nankai University**
Big Data in Actuarial Sciences and Matlab Programming, Best TA Award	**Spring 2024 in Nankai University**
Actuarial Modelling, Best TA Award	**Fall 2023 in Nankai University**
Machine Learning with R, Best TA Award	**Spring 2023 in Nankai University**

INDUSTRY PROJECTS & INTERNSHIP

China Re, Analysis of Mortality in China (Leader: Asso. Prof. Jiamei Sun)	**Mar. 2023 – May. 2023**
PingAn Property Insurance, New Energy Vehicle Risk Analysis (Leader: Prof. Lianzeng Zhang)	**Jan. 2023 – Mar. 2023**
SCOR, Vitality Insurance in China (Leader: Prof. Lianzeng Zhang)	**Oct. 2022 – Dec. 2022**
PwC, Life Insurance Consulting Intern	**Jan. 2022 – Mar. 2022**
SINO Life, Life Products Reserving Intern	**Aug. 2021 – Nov. 2021**
Taikang Life, Life Products Modelling Intern	**Jun. 2021 – Aug. 2021**

PROFESSIONAL SKILLS AND CREDENTIALS

Programming: Python, Matlab, R, JAVA, LaTeX
Language: English (IELTS 8.0, PTE 79); Chinese, mother tongue; Cantonese, mother tongue
Associate Membership: Society of Actuaries (ASA)

OTHER STUDENT POSITIONS

Orchestra Conductor of Southwestern University of Finance and Economics	2020 – 2022
Lead Clarinetist of Southwestern University of Finance and Economics	2018 – 2020

REFEREES

- Lianzeng Zhang, Professor, School of Finance, Nankai University.
  Email: zhlz@nankai.edu.cn

- Xiaowei Chen, Professor, School of Finance, Nankai University.
  Email: chenx@nankai.edu.cn

- Liang Yang, Associate Professor, School of Finance, Southwestern University of Finance and Economics.
  Email: yangliang@swufe.edu.cn