

YUAN ZHUANG

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EDUCATION

Nankai University, School of Finance

Sep. 2022 – Present

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: 90.4/100, Rank: 3/46

Chengdu, Sichuan

PUBLICATIONS

Under Review

- Luo, L., & Zhang, L., & **Zhuang, Y.** (2024). Assessing Regional Flood Risks under Climate Change: A Machine Learning and Spatial Clustering Approach. *The Geneva Papers on Risk and Insurance - Issues and Practice* (Under Review)
- Zhang, L., & **Zhuang, Y.** (2024). What KAN Mortality Say: Smooth and Interpretable Mortality Modeling Using Kolmogorov–Arnold Networks. *ASTIN Bulletin* (Under Review)

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 SOA China 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

| | |
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| 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

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| 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

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| China National Scholarship , Ministry of Education of P.R.C | Oct. 2023 & Oct. 2024 |
| First-Class Academic 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

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| 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

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| 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, Reading 8.5, Listening 8.5, Writing 6.5, Speaking 7.5); Chinese, mother tongue; Cantonese, mother tongue

Associate Membership: Society of Actuaries (ASA)

OTHER STUDENT POSITIONS

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

REFEREES

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