Rongsheng (Royce) Zhang

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EDUCATION

University of Illinois Urbana-Champaign **Aug. 2024 - Present**
Bachelor of Science, Double Major in Mathematics [1] and Statistics. (Current) GPA: 3.90/4.00
Minor in Computer Science.
Core Courses:
CS 105 (Intro Computing: Non-Tech), CS 124 (Intro to Computer Science I), CS 128 (Intro to Computer Science II), CS 357 (Numerical Methods I), MATH 347 (Fundamental Mathematics), MATH 416 (Abstract Linear Algebra), MATH 417 (Intro to Abstract Algebra), STAT 107 (Data Science Discovery), STAT 207 (Data Science Exploration), STAT 410 (Statistics and Probability II), STAT 425 (Statistical Modeling I)
Ongoing Courses:
CS 225 (Data Structures), MATH 482 (Linear Programming), STAT 385 (Statistics Programming Methods), STAT 429 (Time Series Analysis), STAT 431 (Applied Bayesian Analysis)

Xi'an Jiaotong-Liverpool University **Sept. 2022 - Jul. 2024**
Bachelor of Science in Financial Mathematics. GPA: 3.88/4.00
Core Courses:
MTH017 (Linear Algebra for Mathematical Science), MTH029 (Calculus (Mathematical Sciences)), MTH008 (Multivariable Calculus (Science and Engineering)), MTH016 (Introduction to Financial Modelling), ACC103 (Introduction to Financial Accounting), ECO109 (Principles of Microeconomics), MTH113 (Introduction to Probability and Statistics), MTH125 (Real Analysis), ECO120 (Principles of Macroeconomics), FIN104 (Introduction to Finance), MTH106 (Introduction to the Methods of Applied Mathematics), MTH116 (Foundations of Financial Computing)

INTERNSHIP EXPERIENCE

Lenovo Global Headquarters, AI Model Evaluation Intern **Jun. 2025 – Aug. 2025**

- Evaluated Text-to-Image generation models in terms of quality, relevance, and diversity.
- Assessed Retrieval-Augmented Generation (RAG) systems on accuracy and information coverage.
- Assisted in building evaluation datasets and metric systems, contributed to manual annotation and result analysis, and supported the optimization of evaluation workflows and tool development.

Zhonghui Boyu Technology Co., Ltd., LLM Application Intern **Jun. 2024 – Aug. 2024**

- Designed and deployed local LLMs using Ollama, and implemented LangChain-based RAG pipelines.
- Optimized hybrid search algorithms (Integrating TF-IDF with embedding vector search), achieving a 40% increase in deployment speed and a 30% improvement in response accuracy.

Shenwan Hongyuan Securities, Market Data Analysis Intern **Aug. 2023**

- Analyzed and tracked daily stock market trends using Excel and Jupyter Notebook.
- Organized content from past financial television programs and supported daily administrative tasks.

RESEARCH EXPERIENCE

Medical Physics Project: Processing Medical Images, Research Assistant **Nov. 2023 – Present**

- Acquired knowledge of the fundamental mathematical principles and applications of convolutional neural networks such as U-net, Dense-net, and Alex-net.
- Developed a reinforcement learning algorithm to automate the segmentation of tumors and organs-at-risk (OARs) in MRI scans for IMRT inverse planning, enabling accurate determination of radiation target areas and incidence angles.
- Applied geometric deep learning to predict MLC aperture shapes from dose-volume constraints, improving multi-leaf collimator motion efficiency in sliding window IMRT.

Paper: Wavelet Coherence Approach Linking Russo-Ukrainian War, Oil Prices, Geopolitical Risk, Stock Market, and Policy Uncertainty in the Global Economy, Corresponding Author and Co-author Jun. 2023 – Jul. 2023

- Conducted data processing on approximately 50,000 records from five types of stock markets and economic indices.
- Accepted by the 2023 International Conference on Education, Management, Economics and Social Science, and submitted to CPCI and CNKI for indexing.

[1] Concentration: Data Optimization

ACADEMIC ACTIVITIES

Peking University Summer School, Large Model: From Foundation to Frontier, Participant **Jul. 2025**

- Attended lectures on neural networks, deep learning, attention mechanism, transformers, and large-scale models.
- Engaged in paper reading reports and course project presentations on the applications and fine-tuning of large models.

SURF Summer Undergraduate Research Fellowship, Participant **Jun. 2023 – Sept. 2023**

- Participated in the program *Artificial Intelligence in Finance with Python*, producing an academic poster titled *"Machine Learning Approaches to Predict Crime Rate in the City of Los Angeles."*
- Processed over 200,000 lines of crime data and applied machine learning for predictive analysis.

EXTRACURRICULAR ACTIVITIES

Peer Tutoring Club, Internal President **Sept. 2022 – Mar. 2024**

- Managed the organization and daily operation of a 120-member club.
- Organized academic seminars, competitions, and a learning partner program for cross-college support.
- Awarded the "Best Contributing Club" recognition.

XJTLU Student Innovation and Entrepreneurship Competition, Group Leader **May. 2024**

- Designed a village intelligent travel App integrating AI for personalized route planning and e-commerce connectivity.
- Won Third Prize and initiated collaboration plans with a tourism company.

HONORS

Dean's List **Jun. 2025**
Asia-Pacific Mathematical Contest in Modeling, First Prize **Aug. 2024**
University Academic Achievement Scholarship **Jul. 2024 & Jul. 2023**
University Outstanding Student **Nov. 2023**
Summer Undergraduate Research Scholarship **Sept. 2023**

SKILLS

Languages: Mandarin (Native), English (Fluent)
Programming: Python (Proficient), Java (Intermediate), MATLAB (Intermediate), R Studio (Intermediate), SQL (Basic), C++ (Basic)
Data Analysis: Machine Learning (Intermediate), Deep Learning (Intermediate), Data Visualization (Proficient)
Office Tools: Excel, PowerPoint, Word, Outlook (Proficient)