

DONGRUN WU

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🎓 EDUCATION

University of Science and Technology of China (USTC), Hefei, China 2022– Present
B.S. in Statistic, expected June 2026

⚙️ GRADE

- Overall GPA: 4.06/4.30
- rank: 2/46((Among all students majoring in Statistic in the School of Management at USTC))

♡ RESEARCH INTERESTS

- Biostatistics
- Machine Learning

👥 EXPERIENCE

Machine Learning and Hyperdimensional Computing Apr. 2024 – Present
Python, R Collaborated with Yinan Bu

Advisor: Professor **Xueqin Wang** (Professor of School of Management, USTC)

- Hyperdimensional computing (HDC) is an efficient, interpretable, and robust computing method based on calculation of hyper vectors.
- Applied this method to the data in UKbiobank and designed several models for data processing and encoding.
- Trained the HDC model and predicted the prevalence rate of several illnesses.

Reinforcement Learning AI for GuanDan (a Chinese card game) Sep. 2023 – June.2024
Python Collaborated with Xiaopu Wang

Advisor: Professor **Xueqin Wang** (Professor of School of Management, USTC)

- This project aims to train a reinforcement learning AI capable of playing GuanDan. One of the key challenges in training such an AI arises from the presence of wildcard cards, which significantly expand the action space. This complexity makes it difficult to effectively train a Q-network.
- Trained a Q-network to evaluate the value of different card-playing choices.
- Developed a transformer-based model for hand card planning and decomposition in Guandan to narrow the action selection space and make choices within a more optimal range.
- Retrain the Q-network with improved choices derived from the card decomposition model.

Teaching Assistant: Mathematical Analysis Sep. 2024 – Present
LaTeX

Advisor: Professor **Bin Xu** (Professor of School of Mathematical Sciences, USTC)

⚙️ SKILLS

- Programming Languages: Python(pytorch), C, R, LaTeX
- English: TOEFL-92

♡ HONORS AND AWARDS

China National Scholarship (highest scholarship from Ministry of Education of China)	2024
Mathematical Contest in Modeling (MCM), Meritorious Award	2024

Outstanding Student Scholarship, Golden award (top 3%)

2023

Mathematics Competition of Chinese College Student, First Prize at Provincial Level

2023

i RELEVANT COURSEWORK

- OG denotes ongoing courses

Analysis	
Mathematical Analysis (95,95,98)	Real Analysis(99)
Complex Analysis(95)	Functional Analysis(OG)
Algebra	
Linear Algebra (100 100)	Foundation of Algebra(96)
Probability and Statistics	
Probability Theory(96)	Mathematical Statistics(92)
Applied Stochastic Processes(100)	Regression Analysis(OG)
Time Series Analysis(OG)	Advanced Probability Theory(OG)
Differential Equations	
Differential Equations(96)	
Computer Science	
Applied Statistical Software(95)	Computer Programming(94)