## 王恒毅

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#### **EDUCATION**

#### School of Mathematical Sciences, Peking University Beijing

Beijing, 2024.9 - 2025.6

- GPA: 3.8/4.0
- Majored courses: Mathematical Analysis, Advanced Algebra, Statistical Thinking, Data Structure and Algorithms, Learning Data Science with Python
- Awards and honors: First Prize in the 16th National College Student Mathematics Competition (Mathematics Category A), Silver Medal in the 2022 China Mathematical Olympiad (Final), Silver Medal in the 2021 China Mathematical Olympiad (Final)

### PROFESSIONAL EXPERIENCE

# Learning Data Science with Python - Final Project: Prediction of Various Metrics Based on MovieLens Dataset Processing and Analysis Beijing, April 2025-May 2025

• Leveraged Python to analyze MovieLens data (1M ratings, 4K movies), using relative deviation and Bayesian statistics to model preferences between user demographics (gender/age/occupation) and genres. Implemented Random Forest, Linear/Logistic Regression, and LightGBM for rating prediction, achieving 0.35 accuracy and 1.2 MSE. Enhanced baseline models with ordinal and hierarchical regression, improving user attribute prediction to 0.8 (gender), 0.4 (7-category age), and 0.5 (20-category occupation) accuracy. Conducted TF-IDF feature extraction and K-Means clustering on movie descriptions, visualizing results via radar charts. Optimized predictions by integrating user profiling, boosting accuracy to 0.45 and reducing MSE to <1. Advanced Python proficiency in ML pipelines and data visualization.</p>

### 64th China Mathematical Olympiad (CMO) National Training Team First Stage Training

Sichuan, March 2023

• With over three years of intensive math competition training, earned a National Silver Medal in the 2022 National High School Mathematics Olympiad (Final), qualifying for the 64th China Mathematical Olympiad National Training Team. Participated in a weeklong, high-intensity closed-door training program featuring four national team selection-level tests, focusing on combinatorics and number theory to enhance problem-solving skills and solidify foundations in combinatorial mathematics and probability statistics. Demonstrated proficiency equivalent to national training team standards in assessments, reflecting strong logical reasoning and advanced mathematical expertise.

# 2022 Peking University Outstanding Middle School Students' Mathematical Inquiry and Expansion Activity, First Prize Beijing, November 2022

Participated in cutting-edge mathematics competition lectures during the thematic event, deepening mathematical understanding and
enhancing research-based learning skills, with a focus on cultivating rapid learning, precise mastery of key concepts, and the ability to
engage with unfamiliar content under tight deadlines. Successfully completed 8 high-difficulty problems spanning algebra, geometry,
number theory, and combinatorics, earning the First Prize and recognition from Peking University for excellence in competition
problem-solving, logical reasoning, and rapid analytical response.

### **EXTRA-CURRICULAR ACTIVITIES**

### Peking University School of Mathematical Sciences Student Union Liaison Department Work - Volunteer

Beijing, September 2024–June 2025

• Joined the Liaison Department via Student Union group interviews, leading sponsor communications and cross-departmental coordination. Managed diverse tasks including interview documentation, newsletter drafting, and event logistics. Demonstrated exceptional organizational skills, excelling in high-pressure task management, deadline-driven execution, and interpersonal collaboration—recognized by the Student Union leadership for impactful contributions.

### 2024 Fuguang Foundation "Fuguang Xiaosong Award" Final Interview - Participant

Guangdong, August 2024

Qualified for the award as a top 50 scorer in the 2024 Fujian Collage Entrance Examination, advancing to the final interview after
passing the preliminary review. Participated in a full-day closed-door interview featuring comprehensive assessments, honing skills in
high-stakes problem analysis, short-term task planning, and task-driven communication—significantly enhancing strategic planning
and adaptive response capabilities..

### OTHER INFORMATION

- CET-4 score: 623/710. Proficient in listening, speaking, reading, and writing, capable of adapting to basic workplace communication.
- Hobbies & Interests: Football (Participates in faculty team training), Piano (Achieved amateur level 10 proficiency), Go (reached amateur 2-dan level), Texas Hold'em poker, reading history and science fiction genres, traveling, gatherings, and other social events.