

# SHIJIA CHEN

Phone: (+86) 188-1481-4400

E-mail: 22079100058@stu.xidian.edu.cn

Personal Blog: <https://phtpsn.github.io/>

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EDUCATION	<p><b>School of Mathematics and Statistics, Xidian University</b> Xi'an, China <i>BSc in Mathematics and Applied Mathematics (Elite Class, Joint training of mathematical information and computer science)</i> 2022 - 2026 (expected)</p> <ul style="list-style-type: none"><li>• GPA: 3.9 / 4.0 Rank: 2 / 30</li><li>• Direction: Cryptography / Artificial Intelligence / Statistics</li></ul> <p><b>Hangzhou No.2 High School of Zhejiang Province</b> Hangzhou, China 2019 - 2022</p>
MAJOR COURSES	<p><b>Foundation Courses:</b> C Programming, University Physics, Mathematical Analysis, Advanced Algebra, Modern Algebra, Complex Variable Function, Real Variable Function, Operational Research and Optimization Methods, Probability Theory.</p> <p><b>Core Courses:</b> Topology, Functional Analysis, Partial Differential Equation, Numerical Analysis, Modern Cybernetics, Differential Geometry, Stochastic Process, Digital Signal Processing, Data Structure, Computer Network Basis, Mathematical Modelling.</p> <p><b>Direction Courses:</b> Modern Cryptography, Information Theory, Computational Intelligence, Machine Learning, Intelligent Control, Mathematical Statistics, R Programming, etc.</p> <p><b>Electives:</b> Graph Theory and Network Science, Wavelet Analysis, Operator Algebra, Biomathematics, Neuroscience imaging, Microeconomics, French, etc.</p>
ACADEMIC VISITING EXPERIENCE	<p><b>2024 International Science Summer School (Math Track), Westlake University   Hangzhou, China</b> July 8th - 26th, 2024</p> <ul style="list-style-type: none"><li>• Learn about basic knowledge of algebraic topology and algebraic geometry.</li><li>• A glimpse of how number theory introduces and serves for other fields of mathematics, like the solution of a few typical Diophantine equation.</li><li>• A brief introduction to dynamical systems and ergodic theory.</li><li>• Investigate the Navier-Stokes equations and to experience how mathematical research is conducted on PDEs.</li><li>• Other primary learning on stochastic simulation, geometric measure theory, multi-scale modeling, etc.</li></ul> <p><b>The 6th IEEE EMBA International Summer School of Neural Engineering, Shanghai Jiao Tong University   Shanghai, China</b> July 29th - Aug 3rd, 2024</p> <ul style="list-style-type: none"><li>• Learn about advanced brain imaging technology and experience MRI by firsthand.</li><li>• Practice: Use HL-HGAT model to perform sex classification on the ABCD dataset.</li><li>• Make reports on fundamental neurodynamics.</li></ul> <p><b>2024 ASSA International Summer School on Methodology of Computational Social Science, Huazhong Agricultural University   Wuhan, China</b> Aug 19th - Aug 23rd, 2024</p> <ul style="list-style-type: none"><li>• Understand how ABM is applied in computational social science and its protocol.</li><li>• Develop a visualized multi-agent reinforcement learning program based on Netlogo.</li></ul>
SKILLS AND CERTIFICATES	<p><b>Languages:</b> Chinese, English, French. (Certificates for National College English Test Band-6 (Excellent) and National College French Test Band-4)</p> <p><b>Programming:</b> MATLAB, Python, R, C++, SQL, Lean. (Second-level Certificate for National Computer (Excellent))</p>

## PROJECTS

### Research on Distributed Algorithms for UAV Swarms

National-level College Students Innovation and Entrepreneurship Training Program  
Advisor: Zhaohui Zhang 2023.12 - 2024.12 (expected)

- Project organization.
- In charge of algorithm design and programming: distributed adjacency information table for formation control and artificial potential field for obstacle avoidance.
- Use MATLAB APP to build a test platform.

### Linear B-cell Epitope Prediction Based on Deep Neural Networks

Advisor: Shengli Zhang 2023.11 - 2024.10 (expected)

- In charge of the design of our Epitope identification neural network based on BiLSTM.

### Digital Intelligence Logistics: City To-home Logistics Pioneer

Silver Award of Xidian University in China International College Student Innovation Competition  
Advisor: Weifeng Gao 2024.08

- In charge of shortest path search algorithm programming based on A\* algorithm.

## AWARDS AND HONORS

- **National Bronze Prize**, 2023 “FLTRP · ETIC Cup” National English Reading Contest 2023.12
- **First-class Award**, Comprehensive Development Scholarship / Title of “Excellent Student” of 2022 - 2023 Academic Year, Xidian University 2023.11
- **Second Prize**, 2023 (The Ninth) National College Students Statistical Modeling Contest (Shaanxi Region) 2024.07
- **Outstanding Prize**, The Qualifying Contest for China Undergraduate Mathematical Contest in Modelling of Xidian University 2024.06
- **Record-breaking**, Women’s 400m, The 44th Track and Field Meet of Xidian University 2024.04
- **Gold**, Women’s 4x400m (U18), 2023 Shaanxi Open Track and Field Championships 2023.06

## SOCIAL WORK AND PRACTICAL EXPERIENCE

- President, The Psychology Association of Hangzhou No.2 High School 2020 - 2021
- Member, The Science and Technology Association of Xidian University 2022 - 2023
- Member, Student Union of School of Mathematics and Statistics 2022 - 2023
- Minister of Secretary Department, Mathematical Modelling Association of Xidian University 2023 - 2024
- Representative of Psychology in administrative class 2022 - 2024
- Finance, Mathematics Association of Xidian University 2024 - 2025
- Member, Track and Field Team of Xidian University 2023 - 2024

### Industry Pioneers: Mathematics Guides the Future | Shanghai & Hangzhou 2023.07

- Conduct interviews with alumni, learn about Work experience and academic planning.
- Visit well-known Internet, financial and astronautic enterprises like Bilibili, Huafu Fund, etc.

### Charming Hangzhou: Entrepreneurial Youth and Digital Future | Hangzhou 2024.07

- Learn about the establishment of small, medium and micro enterprises in Hangzhou Talent Park.
- Visit Hikvision Corporation to learn about the frontier of Internet of Things.
- Understand the standardization management of live streaming e-commerce industry.