

# Qiao Yang

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🌐 [blog.you7n.com](https://blog.you7n.com) (Personal Blog)    🐙 [MickeyYQA](#) (GitHub)

## EDUCATION

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### Beijing No. 80 High School

Sep 2022 - Present

- Cumulative GPA (UW): 4.0/4.0
- AP (Grade 10): Calculus BC (5), Chemistry (5), Physics 1 (5), Microeconomics (5)
- AP (Grade 11): Computer Science A (5), Statistics (5), Psychology (4), English Language and Composition (4)

### Universiteit Leiden Summer School in Languages and Linguistics

Jul 2025 - Aug 2025

- ECTS Credits Received: 6.0
- Course Taken: Introduction to sociolinguistics, Introduction to papyrology, The art of writing a grammar

### John Hopkins University Summer School

Jul 2024

- Cumulative GPA: 4.0/4.0
- Credit Received: 1.0
- Course Taken: Data Analytics Workshop

## AWARDS & HONORS

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- International Olympiad of Linguistics China (IOLC) Regional Competition Highly Distinction (Top 10%), 2025
- International Olympiad of Linguistics China (IOLC) National Competition Distinction Award (Top 30%), 2025
- International Olympiad of Linguistics China (IOLC) Regional Competition Distinction Award (Top 30%), 2024
- USA Computing Olympiad (USACO) Gold Medalist, 2024
- Academic Excellence Award (Top 10 out of 721 students), 2025
- Excellence Award and Annual Scholarship (Top 35 out of 721 students, 2024)
- International Mathematical Modeling Challenge (IM<sup>2</sup>C) International Finalist (Top 7%) and National Finalist (Top 7%), 2025
- The 44<sup>th</sup> Beijing Youth Science Creation Competition Second Prize, 2025
- Conrad Challenge China Round Bronze Medal, 2025
- Beijing Fencing League 6th Place in Men's Sabre 17+, 2025

## PUBLICATION

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### Identification of Rip Current Images Using Artificial Intelligence

Nov 2024

Mickey Yang, Ethan Meng, Connor Wu, Leo Qiu, Jocelyn Cai  
[Young Scholar Academic Volume 7](#) 

### Phonological Variation and Gender Performance: A Sociolinguistic Study of the “Nü Guoyin” Phenomenon in Beijing Youth Speech

Sep 2025

Qiao Yang, Zhizhong Tian

Under review at 2nd International Conference on Education, Environment, Arts and Social Science (EEAS 2025), Chicago, USA, September 26-28, 2025

## ACADEMIC ACTIVITIES

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### Historical Chronology in the *Li Gui* Inscription

May 2025 - Jul 2025

Interdisciplinary Researcher, Beijing No.80 High School

5 hrs/wk, 6 wks/yr

- Conducted an interdisciplinary study of the controversial Shang-Zhou bronze inscription “唯甲子朝，岁鼎” from the ancient Chinese bronzeware *Li Gui* (利簋).
- Compared and evaluated different methods of punctuating or breaking up ancient bronze inscriptions using methods from philology, paleography, and historical criticism
- Proposed a new reading based on textual criticism, integrating epigraphic evidence with transmitted texts to reassess its implications for early Chinese chronology
- Co-authored a 15-page research paper written in Chinese, titled “*Li Gui Inscription, Textual Criticism, and Historical Chronology: Possibilities and Limits of Interdisciplinary Methods*”, exploring how a simple change in how people break up a piece of text can reshape centuries of historical understanding.

### Sociophonetic Study of “Nǚ Guoyin” in Beijing Youth

Mar 2025 - Aug 2025

Field Linguist and Cultural Observer, Beijing No.80 High School

8 hrs/wk, 10 wks/yr

- Investigated a sociolect known as “Nǚ Guóyīn” (女国音, lit. “Female National Pronunciation”) among Beijing youth, marked by the fronting of alveolopalatal consonants
- Surveyed 44 participants and found increasing adoption of this feature among male speakers, influenced by social media. Captured how evolving gender perception and digital communication shaped youth speech patterns.
- Identified a significant divergence from previous literature, revitalizing a topic that had received limited academic attention since the early 2000s
- Compiled findings into a 21-page research manuscript contextualizing gender, media, and language evolution in urban China, titled *Phonological Variation and Gender Performance: A Sociolinguistic Study of the “Nǚ Guoyin” Phenomenon in Beijing Youth Speech*
- In proceeding of 2nd International Conference on Education, Environment, Arts and Social Science (EEAS 2025), Chicago, USA, indexed by CPCI.

### International Mathematical Modeling Challenge (IMMC)

Jan 2025, Mar 2025

Data Analyzer, Programmer & Co-Author, Beijing No.80 High School

30 hrs/wk, 4 wks/yr

- Advanced through two rounds
- National Round - Designed optimization models for data centers to minimize electricity costs, maximize renewable energy use, and optimize compute scheduling; introduced real-time task allocation under fluctuating energy supply and a refined power-loss function, achieving lower carbon footprint and improved system efficiency.
- International Round - Built a global sports league scheduling model incorporating time zones, travel distance, and fairness metrics (Elo ratings, HHI), producing an equitable, sustainable multi-objective tournament schedule.

### Rip Current Detection Using AI-Powered Drones

Dec 2023 - Jun 2024

Researcher, Beijing No.80 High School

4 hrs/wk, 28 wks/yr


- Developed a neural network with Python to serve as beach lifeguard.
- Trained the model to scan real-time drone footage in a local processor, identified rip currents with 92.5%
- Triggered alerts when dangerous water patterns were detected to alert nearby swimmers.
- Co-authored and published an academic paper in the *Young Scholar Academic Journal* [🔗](#), seeking to protect lives through coding.

### **Supersmest: A Membrane-Based Sustainable Energy Generator**

*Nov 2023 - Mar 2024*

Engineer & Science Outreach Writer, Beijing No.80 High School

5 hrs/wk, 20 wks/yr

- Co-designed a device that harvests energy from the ocean.
- Use membranes to convert varying salinity gradients in seawater to generate electricity
- Extensively researched materials science literature on semipermeable membranes and electrochemical processes, aiming to make the design low-cost and widely implementable.
- Presented the project at the Conrad Challenge, winning Bronze in the Energy and Environment category
- Created a companion website to share how the device works and why it matters to coastal communities: [supersmest.you7n.com](https://supersmest.you7n.com) 

### **Acoustics Optimization in Classroom Architecture**

*Nov 2023 - Mar 2024*

Sound Designer, Beijing No.80 High School

3 hrs/wk, 20 wks/yr

- Diagnosed sound distribution issues in school auditoriums using professional-grade Genelec speakers and GLMv4 calibration software
- Collected and modeled acoustic field data across various classroom types to evaluate different speaker arrangements
- Developed a web tool that allows users to input room dimensions to get optimal speaker layout suggestions with performance scores
- Addressed real-world spatial acoustics problems with a practical, user-centered design solution, enhancing clarity and comfort.

## **EXTRACURRICULAR ACTIVITIES**

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### **Voice Intent - Assistive Communication App**

*Feb 2025 - Sep 2025*

Human-centered Developer

4 hrs/wk, 30 wks/yr

- Designed and programmed a cross-platform mobile app that helps autistic users navigate subtle, implied meanings in everyday conversations and give tips on how to respond to them
- Worked closely with users and made UI tweaks & feature updates based on their feedback
- Challenged neurotypical biases in design by building assistive AI tools that help people interact with confidence
- Wrote a 14-page paper introducing the technical details of developing the App, which had been accepted and published in the 12th International Conference on Foundations of Computer Science & Technology (CST 2025), Dubai, UAE, August 23-24, 2025.

### **Autism Support Volunteer**

*Jan 2025 - Present*

Volunteer

2 hrs/wk, 18 wks/yr

- Participated in activities for individuals on the autism spectrum. Played board games, read picture books, and built trust with these children.
- Provided emotional support and engaged in communication exercises to build trust and social connection

### **Elective Course: Linguistics & NLP**

*Sep 2024 - Jan 2025*

Instructor & Peer Mentor

5 hrs/wk, 16 wks/yr

- Designed and taught a full-semester elective to students from Grades 9-12
- Introduced core linguistic fields (syntax, phonology, semantics) and linked them to applications in Natural Language Processing (NLP)
- Discussed how to understand machine learning from the perspective of linguistics, as well as introductions to enabling machines to identify human emotions.
- Facilitated hands-on projects that explored NLP tools from a linguistic perspective

## Independent Technical Blog

*Jul 2024 - Present*

Creator

1 hr/wk, 20 wks/yr

- Built a [personal blog](#) to publish in-depth articles on linguistic research and software engineering topics
- Attracted engagement from international developers and researchers across platforms
- Recognized by Middle Eastern developers for publishing a practical macOS compatibility fix; featured in their tech blog

## Glottologia Linguistics Club

*Feb 2024 - Present*

Founder & Leader

3 hrs/wk, 40 wks/yr

- Founded and lead a student linguistics society with 80+ members, officially accredited as a recognized student organization
- Mentored a five-student team that advanced to the IOLC China Round and Asia-Pacific Linguistics Olympiad (APLO) with two of them won a top 30% award.
- Selected as an official “Campus Ambassador” of IOLC for outstanding initiative in promoting linguistic education
- Organized weekly deep dives into phonetics, typology, writing systems, and language games; Created a constructed language with uncommon O-V-S word order and an Abugida writing system inspired by Arabic script.
- Received an official club certification from IOLC committee

## Dean’s List HWeek Program

*Jan 2024*

Participant

8 hr/wk, 2 wks

- Selected to Dean’s List (top 10% of participants) based on GPA and academic awards
- Attended flagship HSYLC conference, visited Harvard campus, and joined lectures and professor discussions with Harvard students for one week

## School Fencing Team

*Oct 2023 - Present*

Core Member

4 hrs/wk, 30 wks/yr

- Represented school in city-wide tournaments; placed 6th in the 2025 Beijing Fencing League (17+ men’s sabre)
- Committed to both foil and sabre, contributing to team training and competitions
- Assisted coach in training new members, focusing on footwork fundamentals and the sense of distance, which are essential to fencing

## “Mickey’s Comic Diary”

*Nov 2017 - Present*

Writer & Editor

2-4 hrs/wk, 52 wks/yr

- Created and maintained a personal WeChat blog, “Mickey’s Comic Diary” (Mickey 漫画日记) with over 1,600 original comic entries and 1,200+ subscribers
- Published content on personal reflections, linguistics, AI, algorithms, and drones; one post hit 3,500+ views
- Curated two educational columns on linguistics and informatics concepts, fostering public interest in language and technology
- Part journaling, part analytical writing. Turned everyday experiences into moments of inspiration

## PERSONAL

- **Languages:** Mandarin (native), English (proficient; TOEFL: 116), Japanese (basic), German (intermediate), French (basic)
- **Programming:** Dart (Flutter), Python, C++, Java, Swift, HTML/CSS/JavaScript
- **Software & Tools:** L<sup>A</sup>T<sub>E</sub>X, Praat, Linux, Git, Blender, Tensorflow, Docker
- **Sports & Arts:** Fencing (Beijing 6<sup>th</sup> Place), Piano