

# Tianyang Tao

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## EDUCATION

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### Université Paris-Saclay

Master in Artificial Intelligence

- **Main Course:** Learning theory and advanced machine learning, Advanced optimization

PARIS

Sept. 2022 – Present

### University of Chinese Academy of Sciences

Master in Electronic and Information Engineering (quit)

- **Main Course:** Advanced Algorithm - Design and Analysis, Machine Learning, Stochastic Processes

BEIJING

Sept. 2020 – July 2022

### Peking University

B.S. in Physics / B.S. in Computer Science and Technology

- **Main Course:** Algebraic Structure and Combinatorial Mathematics, Elementary Number Theory and Its Applications, Introduction to Theoretical Computer Science, Algorithmic game theory, Information Theory, Methods of Mathematical Physics

BEIJING

Sept. 2016 - July 2020

## RESEARCH EXPERIENCE

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### National University of Singapore

Research Assistant, Advised by Jiaheng Zhang

- Participated in seminars, studying classic and cutting-edge papers in applied cryptography, especially zero-knowledge proofs.
- Worked on AI security and submitted a paper.
- Worked on zero-knowledge machine learning and submitted a paper.

ONLINE / SINGAPORE

July. 2023 - Present

### Institute of Automation, CAS

Research Assistant, Advised by Bo Xu

- Participated in seminars, studying classic and cutting-edge papers in reinforcement learning.
- Worked on efficient multi-task DRL algorithm frameworks and published a AAAI paper.

BEIJING

Sept. 2021 - July 2022

### Institute of Computing Technology, CAS

Research Internship, Advised by Xiaoming Sun and Guojing Tian

- Participated in seminars, studying and working through exercises from the book *Computational Complexity*.
- Worked on several theoretical computer science problems but didn't get any results.

BEIJING

Mar. 2021 - July 2021

## PROJECT

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### Mahjong AI

A competitive agent implemented in C++

- Secured a position as a finalist in the IJCAI 2020 Mahjong AI Competition, earning a \$1000 prize.
- Achieved **1st** place in the 15th National Computer Games Tournament Mahjong Track.

## PUBLICATIONS

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- **Provably Robust Multi-bit Watermarking for AI-generated Text via Error Correction Code**  
Wenjie Qu, Dong Yin, Zixin He, Wei Zou, **Tianyang Tao**, Jinyuan Jia, Jiaheng Zhang.  
(Submitted)
- **PiCor: Multi-Task Deep Reinforcement Learning with Policy Correction**  
Fengshuo Bai, Hongming Zhang, **Tianyang Tao**, Zhiheng Wu, Yanna Wang, Bo Xu.  
(Accepted by AAAI 2023)

## AWARDS

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### Programming Competition

- The 18th Peking University Collegiate Programming Contest (**3rd Prize**)
- The 2018 ACM-ICPC Asia Beijing Regional Contest (**Bronze, unofficial team**)

May 2019

Dec. 2018

### Game AI Competition

- Kaggle Lux AI Challenge (**Silver, 25/1178**)
- NeurIPS 2021 MineRL Competition Intro Track (**3rd**)
- The 10th Peking University Game AI Competition (**Top 8 / 223**)

Dec. 2021

Oct. 2021

June 2018

## SKILLS & OTHERS

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**Languages:** Native in Mandarin, Fluent in English (IELTS 6.5)

**Technical Skills:** Python, C++, Mathematica

**Interests:** Rock climbing, Tree climbing, Skiing