



# Bingxiang He

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## 🎓 EDUCATION

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**Tsinghua University**, Beijing

09, 2020 – present

*Undergraduate* Dept. of Computer Science, graduate on 06, 2024

### Main courses and academic performance

*GPA: 3.97/4.0, Rank: 4/181*

**A+ : English for Academic Purposes (A): Spoken Communication**, Probability and Statistics, Physics for Scientists and Engineers B(2), **Artificial Neural Networks**

**A :** Fundamentals of Computer Science, **Fundamentals of Programming, Programing and Training, Foundation of Object-Oriented Programming, Assembly Language Programming, Calculus A(1), Calculus A(2), Linear Algebra, Advanced Topics in Linear Algebra, Discrete Mathematics(1)**, Physics for Scientists and Engineers B(1), Introduction to Artificial Intelligence, Software Engineering, **Digital Logic Circuit, Digital Logic Experimentation**, Fundamentals of Computer Graphics, Introduction to Modern Cryptography, **Principles of Signal Processing, Principles and Practice of Compiler Construction**, Introduction to High Performance Computing, **Operating Systems**, Database Special Topic Training, **Cybersecurity Fundamentals**

**A- :** Introduction to Complex Analysis, **Data Structures, Numerical Analysis, Computer Network Security Technology, Computer Architecture**

## 🏆 HONORS & AWARDS

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| 1. Second Prize in Freshmen Scholarship, Tsinghua University                           | 09, 2020 |
| 2. Second Prize in National Undergraduate Physics Competition, Beijing Physics Society | 04, 2021 |
| 3. Comprehensive Excellence Award for the 2020-2021 school year, Dept. of CST          | 10, 2021 |
| 4. Gold Award in Social Practice, Communist Youth League Tsinghua University Committee | 04, 2022 |
| 5. Third Prize in THU Challenge Cup Academic Competition, Tsinghua University          | 04, 2022 |
| 6. December-9th Scholarship, highest scholarship in Dept. of CST                       | 10, 2022 |

## </> PROJECT EXPERIENCES

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1. CodePlay: Website Development of the 39th Student Festival 10, 2021 – 12, 2022
  - Front-end framework: React
  - Language: JavaScript, TypeScript, Html, CSS, CSS3
  - Responsibilities: front-end components and logic
  - Project: [https://github.com/HBX-hbx/CodePlay\\_frontend](https://github.com/HBX-hbx/CodePlay_frontend)
2. ReqMan: Demand Management System 03, 2022 – 06, 2022
  - Front-end framework: React
  - Language: JavaScript, TypeScript, Html, CSS, CSS3
  - Responsibilities: front-end component, logic and communication between front-end and back-end
  - Project: <https://github.com/HBX-hbx/ReqMan-frontend>
3. OpenBackdoor: An open-source toolkit for textual backdoor attack and defense 04, 2022 – 09, 2022
  - Directed by Associate Professor **Zhiyuan Liu, THUNLP**
  - Summarize three practical scenarios of attack methods based on their accessibility and goals
  - Conclude novel metrics for three evaluation dimensions and recommend scenario-specified evaluation methodologies
  - Develop an open-source toolkit OpenBackdoor and conduct extensive benchmark experiments
  - Propose **CUBE**, a simple yet strong baseline method targeting purifying poisoned datasets
  - Second author. **Paper** submitted to NeurIPS 2022 D&B
4. Chrome Extension Development 【AtomEcho : Webpage to Table】 09, 2022 – 12, 2022
  - Front-end framework: React
  - Language: JavaScript, TypeScript, Html, CSS, CSS3
  - Internship location: AtomEcho, Beijing
  - Responsibilities: Core Member
  - **Project**: Registered in the Chrome Web Store

## ⚙️ RESEARCH EXPERIENCES

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1. Research Group for Safe NLP Systems 09, 2021 – present
  - **OpenBackdoor**: An open-source toolkit for textual backdoor attack and defense [**paper**]

## 🔧 IT SKILLS

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- Computer Language: C/C++ == Python > JavaScript == TypeScript > SQL
- Platform: Linux, Windows
- Tool: Git, SSH, Make, Tmux, Markdown, LaTeX
- Full-stack development: React, Django, Nginx, MySQL
- CET6: 571