



Bingxiang He

✉ hbx20@mails.tsinghua.edu.cn · 📍 Homepage: <https://hbx-hbx.github.io>

☎ (+86) 134-1598-2735 · 🏛 Dept. of Computer Science, Tsinghua University, China

🎓 EDUCATION

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

- | | |
|---|----------|
| 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. Second Prize in the 3rd Guangdong-Hong Kong-Macao "Greater Bay Area Cup" Financial Mathematical Modeling Competition | 12, 2022 |

</> PROJECT EXPERIENCES

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
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
5. TensorFlow Vulnerability Information Summary 06, 2023 – 07, 2023
 - Language: Python
 - Internship location: 360, Beijing
 - Responsibilities: Core Member
 - Duty: Organize the information of more than 400 CVE vulnerabilities reported by the TensorFlow framework, including vulnerability impact version, vulnerability hazard, vulnerability impact operator, recurrence parameters and many other vulnerability information.
6. Research and development based on semantic understanding with Chinese characteristics 07, 2023 – Now
 - Language: Python
 - From: MIGU
 - Responsibilities: Core Member, Preprocess the data for post-training and supervised fine-tuning, and independently complete the code implementation
 - Solution: Using CPM-Bee-10B as the base model, we extensively collect data including the MFAs' speeches, etc., and carry out post-training, supervised fine-tuning, and RLHF three-stage training.

⚙️ RESEARCH EXPERIENCES

1. OpenBackdoor 09, 2021 – 09, 2022
 - Responsible for data preprocessing and experimental evaluation. The toolkit has been published on THUNLP.
 - **OpenBackdoor**: An open-source toolkit for textual backdoor attack and defense **[paper]**
2. Beat LLMs at Their Own Game 03, 2023 – 06, 2023
 - Responsible for data preprocessing and experimental evaluation.
 - The paper is currently being submitted to EMNLP, 2023. **[paper]**

IT SKILLS

- 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