## Tinghao Xie

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## EDUCATION

<ul> <li>Princeton University, Princeton, United States of America</li> <li><i>Ph.D. candidate</i>, Electrical Computer Engineering (ECE)</li> <li>Advisor: Prof. <i>Prateek Mittal</i></li> </ul>	08/2022 – Present
<ul> <li>Zhejiang University, Zhejiang, China</li> <li><i>B.E.</i>, Computer Science and Technology (CS)</li> <li>GPA: 3.99/4.00 (92.07/100)</li> <li>Rank: 1st/186</li> </ul>	09/2018 – 06/2022
<ul> <li>University of Oxford, Oxford, United Kingdom</li> <li><i>Visiting Student</i>, Computer Science</li> <li>GPA: 4.00/4.00</li> <li>Courses: Machine Learning, Computational Learning Theory</li> </ul>	10/2021 – 12/2021

## *Q* Research Interests

Safe AI; Secure and Reliable AI Systems; Robust and Adversarial ML.

### PUBLICATIONS & MANUSCRIPTS

# SORRY-Bench: Systematically Evaluating Large Language Model Safety Refusal Behaviors %, 🖄, </>

**Tinghao Xie\***, Xiangyu Qi\*, Yi Zeng\*, Yangsibo Huang\*, Udari Madhushani Sehwag, Kaixuan Huang, Luxi He, Boyi Wei, Dacheng Li, Ying Sheng, Ruoxi Jia, Bo Li, Kai Li, Danqi Chen, Peter Henderson, Prateek Mittal *Preprint (Under Review)* 

### Fantastic Copyrighted Beasts and How (Not) to Generate Them %, 🔄, 🛷

Luxi He\*, Yangsibo Huang\*, Weijia Shi\*, **Tinghao Xie**, Haotian Liu, Yue Wang, Luke Zettlemoyer, Chiyuan Zhang, Danqi Chen, Peter Henderson *Prenrint (Under Review)* 

Preprint (Under Review)

### AI Risk Management Should Incorporate Both Safety and Security 🖄

Xiangyu Qi, Yangsibo Huang, Yi Zeng, Edoardo Debenedetti, Jonas Geiping, Luxi He, Kaixuan Huang, Udari Madhushani, Vikash Sehwag, Weijia Shi, Boyi Wei, **Tinghao Xie**, Danqi Chen, Pin-Yu Chen, Jeffrey Ding, Ruoxi Jia, Jiaqi Ma, Arvind Narayanan, Weijie J Su, Mengdi Wang, Chaowei Xiao, Bo Li, Dawn Song, Peter Henderson, Prateek Mittal

Preprint (Under Review)

### Assessing the brittleness of safety alignment via pruning and low-rank modifications %, 🖄, 🚸

Boyi Wei\*, Kaixuan Huang\*, Yangsibo Huang\*, **Tinghao Xie**, Xiangyu Qi, Mengzhou Xia, Prateek Mittal, Mengdi Wang, Peter Henderson *ICML* 2024

## Fine-tuning Aligned Language Models Compromises Safety, Even When Users Do Not Intend To! %, 🖄, </>

Xiangyu Qi\*, Yi Zeng\*, **Tinghao Xie\***, Pin-Yu Chen, Ruoxi Jia, Prateek Mittal<sup>†</sup>, Peter Henderson<sup>†</sup> *ICLR 2024 (Oral) This work was exclusively reported by* 🖾 *New York Times*, and covered by many other social medias!

### BaDExpert: Extracting Backdoor Functionality for Accurate Backdoor Input Detection 🔄, 🛷

**Tinghao Xie**, Xiangyu Qi, Ping He, Yiming Li, Jiachen T. Wang, Prateek Mittal *ICLR 2024* 

### Towards A Proactive ML Approach for Detecting Backdoor Poison Samples %, 🔄, 🛷

Xiangyu Qi, **Tinghao Xie**, Jiachen T. Wang, Tong Wu, Saeed Mahloujifar, Prateek Mittal *USENIX Security Symposium 2023* 

### Revisiting the Assumption of Latent Separability for Backdoor Defenses %, 🖄, 🛷

Xiangyu Qi\*, **Tinghao Xie**\*, Yiming Li, Saeed Mahloujifar, Prateek Mittal *ICLR 2023* 

### Towards Practical Deployment-Stage Backdoor Attack on Deep Neural Networks %, 🔄, 🛷

Xiangyu Qi\*, **Tinghao Xie**\*, Ruizhe Pan, Jifeng Zhu, Yong Yang and Kai Bu *CVPR 2022 (Oral)* 

### WORK EXPERIENCE

Meta GenAI (Media Safety Team), Menlo Park, US

05/2024 - 08/2024

Research Intern

Mentor: Li Chen

• **Project**: Improving Text-to-Image System Safety

## $\heartsuit$ Honors and Awards

Francis Robbins Upton Fellowship Outstanding Graduate Thesis Champion of Zhejiang University Bodybuilding Competition (70kg Level) Elite Liu Yongling Scholarship (1/802) Tencent Scholarship (5/802) The 2nd Class Prize in ASC 20-21 Student Supercomputer Challenge Narada Scholarship (1/372)	$08/2022 \\ 06/2022 \\ 05/2022 \\ 2020 - 2021 \\ 2020 - 2021 \\ 01/2021 \\ 2019 - 2020$
Narada Scholarship (1/372) Champion of Zhejiang University DFM Hip-hop Crew Battle	2019 – 2020 2019

## ▲ SERVICES

*Reviewing* for Neurips 2024, ICML 2024, ICLR 2024 Set LLM Workshop, Neurips 2023 (*Top Reviewer*), Neurips 2023 BUGS Workshop.

### SKILLS

- Programming: C/C++, Python, JavaScript, CUDA, Verilog, Shell, MATLAB, ActionScript, HTML.
- Software: LATEX, Vivado, Adobe {Photoshop, Premiere Pro, After Effects, Audition}.
- Languages known: English(fluent), Chinese(native), Cantonese(native).
- Hobbies: Climbing, Skiing, Dance (Hip-hop, House, etc.), Power Lifting, Swimming, Basketball, Billiards.