

Borui Yang

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🎓 Education

Beijing University of Post and Telecommunication (BUPT), Beijing, China 2021 – Present
Master student major in Computer Science (CS), GPA:83/100, expected June 2024

Hangzhou Dianzi University (HDU), Hangzhou, China 2013 – 2017
Bachelor of engineering major in Computer Science (CS), GPA:76/100

🔬 Research Experience

A Zero-shot detection on Hallucinations of Large Language Models Dec. 2023 - Present
Research Project Guided by Dr. Jie Zhang from King's College London

The use of large language models can lead to hallucinations, and detecting and correcting hallucinations has become an effective method to improve the quality of text generated by large models. In this study, we:

- Develop a zero-shot method for detecting hallucinations from LLM's responses themselves, so that we can find out the possibility of hallucinations even we don't know the exact answer of the problems.
- Horizontally comparing the hallucination rates of multiple large models in various knowledge categories, and we improved the quality of the TruthfulQA dataset currently used for evaluating hallucination.

Research on Cross-Version Linux Driver Upgrade Tool Based on LLMs Oct. 2022 - Present
Master's Thesis Guided by Dr. Mengwei Xu

The source code of Linux kernel update very frequently nowadays, the code of Linux drivers has to be rewritten to adapt to those updates. In this research, we:

- Designed a method to encode code diff and designed a method for rapidly locating the most relevant parts based on AST parsing.
- Built an automatic tool for Linux Drivers' code-editing work.

Research on Additional Information Security in Ethereum Transactions Sep. 2021 - Feb. 2022
Research Project Guided by Dr. Haoyu Wang

Transaction records on the blockchain are immutable, so many people attach some content they want to permanently retain in virtual currency transactions. However, some people also attach some unsafe information. In this research, we:

- Used Elasticsearch to obtain all Ethereum transaction records from the database and finds records with custom additional data, and we decoded and analyzed the content of all records
- Used a sandbox to verify the security of the information

📄 Publications

- **Borui Yang**, Jie Zhang, Gias Uddin and Md Afif Al Mamun. A zero-shot detection on hallucinations using LLMs' response. Lead in processing for International Conference on Software Engineering(ICSE) 2025
- **Borui Yang**, Hongyu Li, and Dongqi Cai. **GPT4D: Automatic Cross-Version Linux Driver Upgrade Toolkit**. Processing In: EAI MLICOM 2023

💼 Working Experience

Didi Chuxing Technology Co. Beijing, China, **Summer Intern** Jun. 2023 – Sep. 2023
China Foreign Exchange Trade System Shanghai, China, **Software Development Engineer**
Dec. 2017 – Sep. 2018

⚙️ Skills

- Programming languages: C / C++ / Python / Rust / Golang / PHP
- English Skill: 7.0(IELTS, 7.5/8.0/6.5/6.0)

♡ Honors and Awards

<i>1st Prize</i> , Beijing University of Posts and Telecommunications Scholarship	Sep. 2021
<i>Outstanding graduates</i> , Hangzhou Dianzi University	Jun. 2017
<i>Golden Medal</i> , 2015 Zhejiang Provincial College Student Programming Competition	Apr. 2015
<i>Silver Medal</i> , 2014 ACM/ICPC Asia Regional Competition Shanghai Division	Nov. 2014
<i>Silver Medal</i> , 2014 ACM/ICPC Asia Regional Competition Beijing Division	Oct. 2014
<i>1st Prize in Shandong Province</i> , Chinese High School Mathematics League	Apr. 2012