

# YUTONG CHENG

(+1) 540-666-1970  
yutongcheng@vt.edu  
ccsnow127.github.io

## EDUCATION

**Department of Computer Science, Virginia Tech** VA, United States  
*Ph.D. in Computer Science* 2024 - present

- GPA: 3.85
- Research area: Application and customization of LLMs into knowledge-intensive and complex applications in security and software engineering

**School of Software Engineering, Beijing Jiaotong University** Beijing, China  
*B.E. in Software Engineering* 2018 - 2022

- GPA: 3.23

## PUBLICATIONS

1. **Yutong Cheng**, Osama Bajaber, Dawn Song, Peng Gao. CTINEXUS: Unleash Cyber Threat Intelligence via In-Context Learning of Large Language Models. *Under peer review*, 2024.
2. Xu, Junjielong and Fu, Qiuai and Zhu, Zhouruixing and **Cheng, Yutong** and Li, Zhijing and Ma, Yuchi and He, Pinjia. Hue: A user-adaptive parser for hybrid logs. *Proceedings of the 31st ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE)*, 2023.

## INTERNSHIPS & EXPERIENCE

**AtomEcho** | Algorithm Developer 2023.06 - 2023.12

- Developed a framework (AtomTool) for integrating tool utilization skills into LLMs.
- Implemented API integrations to enhance LLM's tool usage capability, improving LLM accuracy in handling complex API parameter settings.
- Reduced the hallucination phenomenon by refining prompt design and retrieval methods, improving LLM response accuracy and reliability.

**Chinese Uni. of Hong Kong (Shenzhen)** | Research Assistant 2022.09 - 2023.06

- Conducted a measurement study on NatSpec comment standards in Ethereum smart contracts and identified prevalent error patterns.
- Developed CETerminator, an automated tool using in-context learning of LLMs to detect and rectify comment errors in Solidity code.
- Built a benchmark for evaluating the model's performance in NatSpec comment error detection and correction.

**PaaS Lab, Huawei** | Algorithm Developer 2022.06 - 2022.09

- Collected and curated hybrid log data from multiple departments in Huawei Cloud for log analysis.
- Implemented a two-step log grouping algorithm using coarse- and fine-grained techniques with a multinomial search tree for efficient template extraction.
- Designed a template updating mechanism to integrate human feedback to resolve ambiguous tokens.

**Yuewen Group, Tencent** | Backend Developer 2020.06 - 2020.09

- Developed dynamic UI customized to user interests, integrating real-time content recommendation statistics.
- Created responsive framework to adjust interface content based on user click feedback.

## AWARDS & HONORS

- **Bitshares Fellowship**, for smart-contract-related research project 2024.09
- **Virginia Tech CS Departmental Travel Grant** 2024.06
- **CCI SWVA Cyber Innovation Scholarship**, for CTI-related research project 2024.03

## PROFESSIONAL SERVICES

- **Student Organizer**, for the 2024 DMV Security Workshop.
- **External Reviewer**, for NDSS 2025, ACM CCS 2024, DLSP 2024, TOPS 2023, IEEE EuroS&P 2024