Mengying Wu

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Education

PhD. Student / **Fudan University** / *Cyberspace Security* 2021 – Present
GPA: 3.71 / 4.00
Supervisors: Prof. Min Yang, Prof. Geng Hong

B.E. / **ShanghaiTech University** / *Computer Science and Technology* 2017 – 2021
GPA: 3.72 / 4.00 （Rank: 6 / 140）

Research Interest

My research focuses on building cyber threat intelligence to understand and defend against emerging underground cybercrime threats, particularly at the intersection of different domains such as web security, email security, and LLM security. My work has been published at top conference including ACM CCS, NDSS, USENIX Security, and ICSE. My research contributions have been recognized by leading industry vendors such as Tencent, Baidu, and Docker, and have also been adopted by law enforcement agencies for combating real-world cybercriminal activities.

Publications

- **One Email, Many Faces: A Deep Dive into Identity Confusion in Email Aliases**
  Mengying Wu , Geng Hong, Jiatao Chen, Mingxuan Liu, Baojun Liu, Min Yang
  The Network and Distributed System Security (NDSS) Symposium 2026 (NDSS'26, **CCF-A**)
- **Beyond Exploit Scanning: A Functional Change-Driven Approach to Remote Software Version Identification**
  Jinsong Chen*, ***Mengying Wu*** *（co-first author）, Geng Hong, Baichao An, Mingxuan Liu, Lei Zhang, Baojun Liu, Haixin Duan, Min Yang
  The 34th USENIX Security Symposium (USENIX Security'25, **CCF-A)**
- **Exposing the Hidden Layer: Software Repositories in the Service of SEO Manipulation**
  Mengying Wu *, Geng Hong*, Wuyuao Mai, Xinyi Wu, Lei Zhang, Yingyuan Pu, Huajun Chai, Lingyun Ying, Haixin Duan, and Min Yang
  The 47nd International Conference on Software Engineering (IEEE/ACM ICSE'25, **CCF-A**)
- **Revealing the Black Box of Device Search Engine: Scanning Assets, Strategies, and Ethical Consideration**
  Mengying Wu *, Geng Hong*, Jinsong Chen, Qi Liu, Shujun Tang, Youhao Li, Baojun Liu, Haixin Duan, Min Yang
  The Network and Distributed System Security (NDSS) Symposium 2025 (NDSS'25, **CCF-A**)
- **Understanding and Detecting Abused Image Hosting Modules as Malicious Services**
  Geng Hong, ***Mengying Wu*** （First student author）, Pei Chen, Xiaojing Liao, Guoyi Ye, and Min Yang
  The 30th ACM Conference on Computer and Communications Security (CCS'23, **CCF-A**)
- **Underground Application Collection Method Based on Spiking Traffic Analysis**
  Pei Chen*, Geng Hong*, ***Mengying Wu*** , Jinsong Chen, Haixin Duan, Min Yang
  Journal of Software, Volume 35, Issue 8, 2024 (**CCF-A**)

- **Proactive Detection for Scam Websites based on Developer Footprint**
  Sen Yang, ***Mengying Wu*** , Geng Hong, Zhemin Yang
  Computer Applications and Software, Volume 42, Issue 4, 2025 (CCF-B)
- **Fabricated-word Search Poisoning Detection Based on Feature Recognition**
  Chen Lin, ***Mengying Wu*** , Wei Guan, Hui Jiang, Geng Hong
  Small and Micro Computer System, Network Release, 2025 (CCF-B)

Projects

AI Algorithm and System for Analyzing and Detecting Underground Industry *Technical Leader* 2022.01 – 2022.12
Collaborators: QIANXIN (Fudan - QIANXIN collaborative project)
Project Objectives: Develop a collection and detection system for underground industry websites, applications, dissemination behavior, and campaign analysis based on developer footprints and distribution channels. Completed tool delivery and discovered over 600,000 underground industry websites and nearly 10,000 underground industry applications, with over 96% being 0Day applications.
My responsibilities: As the technical leader, responsible for designing detection solutions, leading the team to complete development and testing, and regularly providing threat intelligence to collaborating teams.

AI Algorithm and System for Analyzing and Detecting Underground Industry *Project Leader* 2023.04 – 2023.12
Collaborators: QIANXIN (Fudan - QIANXIN collaborative project)
Project Objectives: Conducted research on device search engine behaviors, malicious domain purification, and black-hat SEO, and developed automated application-triggering techniques for domain collection.
My responsibilities: As the project leader, responsible for project planning, team formation, and management, as well as guiding the team in system development and research implementation.

Whitzard: Intelligent Reconnaissance and Evidence Analysis System for Anti-Fraud Websites *Project Manager* Jan. 2021 – Aug. 2021
Project Objectives: Addressed the limitations of passive blocking of fraud websites by proposing a representation model based on fraud behavior traces and developing a proactive detection system for identifying fraudulent websites.
My responsibilities: As the project manager, responsible for project planning, prototype system development, and technical training.
Awards: The project won the Second Prize in the 16th "Challenge Cup" Shanghai Competition and the **First Prize** in the National College Student Information Security Competition.

Xuanjian: Threat Intelligence Platform for Cybercrime Applications *Project Manager* Jan. 2022 – Aug. 2022
Project Objectives: Addressed the limitations of passive defense against cybercrime applications by developing technologies for cybercrime portal discovery, collection and identification of malicious applications, and threat intelligence analysis.
My responsibilities: As the project manager, responsible for forming and selecting an undergraduate team, project planning, prototype system development, and technical training.
Awards: The project won the **National Bronze Award** in the International College Student "Internet+" Innovation and Entrepreneurship Competition and the **First Prize** in the National College Student Information Security Competition.

Zhuyuan: Internet Crime Asset Reconnaissance Radar *Project Manager* 2022.12 – 2023.11
Project Objectives: Addressed the limitation of single-point blocking of cybercrime applications being insufficient against high-speed mass production. Built models to collect program states of cybercrime application assets, performed fine-grained multimodal identification of backend services, and provided backend domain detection reports for precise targeting and mitigation.
My responsibilities: As the project manager, responsible for forming and selecting an undergraduate team, project planning, and technical training.

Awards: The project won the **National Special Prize** in the 18th “Challenge Cup” National College Student Extracurricular Academic and Technological Works Competition.

Services

«China Discipline Development Strategy: Cyberspace Security»	*Co-author*	2022.06 – 2023.12
DataCon2024 Big Data Security Analysis Competition	*Technical Committee Member*	2024.04 – 2024.10

Honors

Fudan University - Outstanding Communist Youth League Cadre	2024
Fudan University - Outstanding Student Cadre	2024
Fudan University - Outstanding Communist Youth League Member	2023
Fudan University - Outstanding Student	2023
Shanghai - Outstanding Undergraduate Graduate	2021
ShanghaiTech University - Outstanding Student	2020
ShanghaiTech University - Outstanding Student	2019

Awards

3rd World Intelligent Driving Challenge –Information Security Track / *Excellent Award*	2019.05
National Undergraduate Mathematical Contest in Modeling –Shanghai Division / *Second Prize*	2019.09
DataCon2021 Big Data Security Analysis Competition –Domain Security Track / *4th Place*	2021.12
DataCon2022 Big Data Security Analysis Competition –Domain Security Track / *Second Prize*	2022.12
DataCon2022 Big Data Security Analysis Competition –Software Security Track / *Third Prize*	2022.12