Mingxue Zhang

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RESEARCH INTERESTS

Web Security, Software Security

PROFESSIONAL EXPERIENCE

Tenure-track Research Professor Nov. 2022 – Present

School of Cyber Science and Technology, Zhejiang University

EDUCATION

The Chinese University of Hong Kong Aug. 2018 – Jul. 2022

Ph.D. in Computer Science and Engineering

Advised by Prof. Wei Meng

Wuhan University Sep. 2014 – Jun. 2018

B.Eng. in Computer Science and Technology *(Hongyi Talent Class)*

GPA: **3.89 / 4.0**, ranked **no. 1** in School of Computer Science

PUBLICATIONS

1. **PFORTIFIER: Mitigating PHP Object Injection through Automatic Patch Generation.**
   Bo Pang, Yiheng Zhang, Mingzhe Gao, Junzhe Zhang, Ligeng Chen, Mingxue Zhang ✉, Gang Liang.
   In Proceedings of 45th IEEE Symposium on Security and Privacy (S&P), San Francisco, CA, May 2025.

2. **Sensitive Behavioral Chain-focused Android Malware Detection Fused with AST Semantics.**
   Jiacheng Gong, Weina Niu, Song Li, Mingxue Zhang, Xiaosong Zhang.
   In IEEE Transactions on Information Forensics and Security (TIFS).

3. **GraphTunnel: Robust DNS Tunnel Detection Based on DNS Recursive Resolution Graph.**
   Guangyuan Gao, Weina Niu, Jiacheng Gong, Dujuan Gu, Song Li, Mingxue Zhang, Xiaosong Zhang.
   In IEEE Transactions on Information Forensics and Security (TIFS).

4. **FuzzCache: Optimizing Web Application Fuzzing Through Software-Based Data Cache.**
   Penghui Li, Mingxue Zhang ✉.
   In Proceedings of The 31st ACM Conference on Computer and Communications Security (CCS), Salt Lake City, Utah, October 2024.
   ⋆ **Distinguished Paper Award**

5. **Holistic Concolic Execution for Dynamic Web Applications via Symbolic Interpreter Analysis.**
   Penghui Li, Wei Meng, Mingxue Zhang, Chenlin Wang, and Changhua Luo.
   In Proceedings of 45th IEEE Symposium on Security and Privacy (S&P), San Francisco, CA, May 2024.

6. **CSChecker: Revisiting GDPR and CCPA Compliance of Cookie Banners on the Web.**

   Mingxue Zhang, Wei Meng, You Zhou, and Kui Ren.

   In proceedings of 46th International Conference on Software Engineering (ICSE), Lisbon, Portugal, April 2024.

7. **JSISOLATE: Lightweight In-Browser JavaScript Isolation.**

   Mingxue Zhang and Wei Meng.

   In proceedings of the 29th ACM Joint European Software Engineering Conference and on the Foundations of Software Engineering (ESEC/FSE), Athens, Greece, August 2021.

8. **Revealer: Detecting and Exploiting Regular Expression Denial-of-Service Vulnerabilities.**

   Yinxi Liu, Mingxue Zhang, and Wei Meng.

   In proceedings of the 42nd IEEE Symposium on Security and Privacy (S&P), San Francisco, CA, May 2021.

9. **Detecting and Understanding JavaScript Global Identifier Conflicts on the Web.**

   Mingxue Zhang and Wei Meng.

   In proceedings of the 28th ACM Joint European Software Engineering Conference and on the Foundations of Software Engineering (ESEC/FSE), Sacramento, CA, November 2020.

10. **MineThrottle: Defending against Wasm In-Browser Cryptojacking.**

    Weikang Bian, Wei Meng, and Mingxue Zhang.

    In proceedings of the Web Conference 2020 (WWW), Taipei, Taiwan, April 2020.

11. **Poster: Finding JavaScript Name Conflicts on the Web.**

    Mingxue Zhang, Wei Meng, and Yi Wang.

    In proceedings of the 26th ACM Conference on Computer and Communications Security (CCS), London, UK, November 2019.

12. **All Your Clicks Belong to Me: Investigating Click Interception on the Web.**

    Mingxue Zhang, Wei Meng, Sangho Lee, Byoungyoung Lee, and Xinyu Xing.

    In proceedings of the 28th USENIX Security Symposium (Security), Santa Clara, CA, August 2019.

13. **InstantCryptoGram: Secure Image Retrieval Service.**

    Minghui Li, Mingxue Zhang, Qian Wang, Sherman S. M. Chow, Minxin Du, Yanjiao Chen, and Chenliang Li.

    In proceedings of the IEEE Conference on Computer Communications (INFOCOM), Honolulu, HI, April 2018

PATENT

1. **A Real-time Communication Method for Smartphone based on Hidden Acoustical Signal.**

   Qian Wang, Man Zhou, Mingxue Zhang, and Xiuying Chen.

   CN106161785B, SIPO (The State Intellectul Property Office of The People's Republic of China), 2019

SELECTED HONORS AND AWARDS

CCS 2024 Distinguished Paper Award   Oct. 2024

Qizhen Outstanding Young Scholar   2024 – 2026

Zhejiang University

CUHK Postgraduate Studentship   2018 – 2022

The Chinese University of Hong Kong

Outstanding Graduate of School of Computer Science   Jul. 2018

Wuhan University

National Scholarship   Nov. 2017

The Ministry of education of China

SERVICES

Teaching   ZJU

- Software Security   Spring 2024

- Introduction to Cyber Security   Spring 2024

- Object-oriented Programming in C++   Fall 2024

Conference Program Committee Member

- The Network and Distributed System Security Symposium (NDSS)   2025
- IEEE/ACM International Conference on Software Engineering (ICSE)   2025
- International Symposium on Software Testing and Analysis (ISSTA)   2024
- SecWeb Workshop   2024
- ACM SIGSOFT Symposium on the Foundation of Software Engineering/ European Software

  Engineering Conference (ESEC/FSE)   2023

Journal Reviewer

- IEEE Transactions on Dependable and Secure Computing (TDSC)   2025
- IEEE Transactions on Computers (TC)   2024
- IEEE Transactions on Intelligent Transportation Systems (TITS)   2024
- IEEE/ACM Transactions on Networking (TON)   2023
- Empirical Software Engineering (ESE)   2022

External Reviewer

- The Web Conference (WWW)   2020, 2021, 2022
- The ACM Asia Conference on Computer and Communications Security (AsiaCCS) 2021, 2022
- The ACM Conference on Computer and Communications Security (CCS)   2021

Teaching Assistant   CUHK

- ENGG5015 Computer and Network Security   2019, 2021
- CSCI3170 Introduction to Database Systems   2020
- CSCI4140 Open-Source Software Project Development   2018, 2019
- ENGG1110A Problem Solving by Programming   2018