Yuqin Hong

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Education

Sept 2021 - Jul 2025	Bachelor of Engineering at **Jinan University (211 Project)** Computer Science and Technology **(English Medium Instruction)** GPA: 4.07/5.0 or 90.7/100, RANK: 2/32, CET-4: 587, CET-6: 518
Representative courses	Advanced Mathematics (97/100), Discrete Mathematics (96/100), Probability Statistic (94/100), Problem Solving and Programming (98/100), Computer Organization (93/100), Computer Networks (90/100)

Competitions and Awards

Outstanding Backbone Student of Jinan University Scholarship — Oct 2022

Provincial Third Prize in National Student Contest on Software Testing — Nov 2022

University-level Third Place in Information Mining Competition — Sept 2023

Provincial Second Prize in Shenzhen Cup Mathematical Modeling Challenge — Oct 2023

China National Scholarship (Top 0.2%) — Dec 2023

Provincial Second Prize in Contemporary Undergraduate Mathematical Contest in Modeling — Jan 2024

Successful participants in Mathematical/Interdisciplinary Contest in Modeling — May 2024

Provincial First Prize in LanQiao Cup Contest Software Group — May 2024

National Third Prize in LanQiao Cup Contest Software Group — June 2024

Publications

(Under Review) Yuxia Sun, HuiHong Chen, Wenjian Lv, **Yuqin Hong**, Zhixiao Fu. (Aug. 2024). "WasmGuard: Robust Raw-Binary Detection of WebAssembly Malware with Prior and Contrastive Adversarial Training". In: *The 39th Annual AAAI Conference on Artificial Intelligence.* (AAAI 25, CCF-A)

(Writing in Progress/Resubmit) Yuxia Sun, Wenjian Lv, **Yuqin Hong**, Zhao Chen, Haolin Liu, Zhetao Li. (Jan. 2024). "RARA: Robust Accurate and Rapidly-Trained End2End Attribution of APT Malware". In: *IEEE Transactions on Information Forensics and Security.* (IEEE TIFS, CCF-A, JCR Q1)

(Published) Yuxia Sun, Siyi Pan, Yang Yang, Ziying Huo, **Yuqin Hong**. (Aug. 2024). "Lift: Discriminant classification approach of malware family on time consistent open set." In: *Advanced Intelligent Computing Technology and Applications, pp. 37–49, Springer Nature Singapore* (ICIC 24, CCF-C).

Research and Projects Experience

Crawling and aggregation of heterogeneous news information — Apr 2023 - Jun 2023

Jinan University Information Mining Competition Project, Team leader and Developer

- **Description**: Mainly aims at crawling well-known and authoritative news media websites at home and abroad, designing a universal crawling program to crawl heterogeneous news information, and extracting, cleaning, sorting, and aggregating key news information to form a structured data.
- **Contribution**: Use Python libraries requests and selenium to crawl heterogeneous news information, and implement statistical algorithms to extract and integrate effective news fields in HTML pages, organize reports and present the work.

Robust End-to-End Model for Accurate Attribution of APT Malware Aug 2023 - Jan 2024

Jinan University, Professor Yuxia Sun's research group, Research Intern

- **Description**: Construct robust attribution models for raw-binary APT malware, utilizes obfuscation and introduces perturbations within PE files to generate adversarial samples and further employs adversarial sample updates, the model also incorporates innovative loss functions to enhance the basic adversarial training process, the relevant results have been submitted to the IEEE TIFS journal.
- **Contribution**: Implement and test different losses, deploy Linux server environments for comparative experiments and ablation experiments, and visualize attribution results using t-SNE algorithm.

Binary Classification Model and Application of WebAssembly Malware Feb 2024 - present

Jinan University, Professor Yuxia Sun's research group, Research Intern and Backend Developer

- **Description**: Construct a Wasm source code data set, including benign samples and malicious samples. Adjust the framework of the previous project to apply it to the classification of Wasm software, and then deploy the model as a browser plug-in.
- **Contribution**: Collect the initial data set and use perturbation tools to augment the data set; use the Python flask library to develop the detection plug-in backend and write interface documents.

Skills

- **Python** (Advanced), commonly used libraries: pytorch, numpy, matplotlib, flask, requests, selenium
- **Other Programming Language** (sort by proficiency): C (Skillful), Java, C++ (Basic), Shell, Rust
- **LaTeX**, used for academic writing, resume and slide making
- **Markdown**, used for notes, readme, development documents
- **Other Development Tools**: Linux, Git, Visio (graph making), VS Code and JetBrains' IDE

Student Affairs

Student Representative of the International School Student Congress (Publicity Group)	2021 - 2023
Deputy Head of the International School Student Congress	2023 - 2024
Teaching Assistant of Class 2022 International School Freshman	2022 - 2023
Python Teaching Assistant for the Class 2022 Academic Start-up Project	2022 - 2023
Algorithm Teaching Assistant for the Class 2023 Academic Start-up Project	2023 - 2024
Member of Sunshine & Love Volunteer Team (Secretary Department)	2023 - 2024