

CURRICULUM VITAE



Name: Haotian Chen (Chahot)

Nationality: China

Languages: Chinese (Native), Korean (Fluent), English (Intermediate)

Foreign Language Test:

- **Korean:** TOPIK Level 6 (Highest Level)
- **English:** Not yet (After reaching an intention with a potential supervisor, plan to pass the test within 4 months)

Current Residence: Shandong Province, China

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Objective

One Ph.D. candidate position in the field of cybersecurity or in the field of quantum security.

Professional Summary

Highly motivated and detail-oriented Computer Science PhD candidate with a strong background in cybersecurity, IoT, and quantum security. Continue learning in the field of cyber security before finalizing quantum security as a 1st research interest. Gain a foundational understanding of blockchain, digital twins, the metaverse, and smart cities. Has four years of experience in running professional technology blogs, and continues to create in the field of quantum security and cybersecurity, and has been certified as a "Blogging Expert" and a "Quality Creator in the Field of Cybersecurity" by CSDN, China's largest technology blog. Entered the UCS (Ubiquitous Computing and Security) research laboratory and began to engage in academic research from March 2021. Published a book (Quantum Security: A New Era in Information Protection) with the PHEI (Publishing House of Electronics Industry, the 4th-ranked publisher in the field of Chinese technology books) in July 2024.

Education

• **Ph. D. Candidate** in Computer Science and Engineering (2021.09 – 2023.11) (**GPA = 4.27/4.50, 97.4/100**) at Seoul National University of Science and Technology (SeoulTech), Seoul, Rep. of Korea. (Decided to drop out of current school)

- Specialization: Quantum-based Cybersecurity in IoT

- Tentative Thesis: "A Smart Contract and Digital Twin-based Heuristic Multi-Cooperation Scheduling Framework for Smart Manufacturing in IIoT Environments"

• **B.Sc.** in Computer Science and Engineering (2017.03 – 2021.08) (**GPA = 3.64/4.50, 90.2/100**) at Seoul National University of Science and Technology (SeoulTech), Seoul, Rep. of Korea [Took a semester off because of the covid situation.]

- Specialization: Computer Science and Engineering, Fall 2021 Graduate Rankings: 10th

- Graduation Design & Thesis: "Servers—Client Mini-Network Security Prototype Based on VMWare and GNS3"

Research Experience

- Ph.D. Research Student (2020.08 – 2023.11) at Seoultech, Seoul, Rep. of Korea
 - Blockchain research & publication (self-taught)
 - Study Cryptography with focus on Homomorphic Cryptography and Secure-Multiparty Computation for privacy protection
 - Hands on experience in Qiskit and IBM
 - Studied DT basics (self-taught) and deployed it in one of my published papers.
 - Participated in writing cybersecurity report for the current trends and challenges for korean ministry of defense.
- Published work:
 1. Leveraging Application Permissions for Android Ransomware Detection: Deep Reinforcement Learning Approach, *Journal of Network and Computer Applications* (ISSN 1084-8045, Impact Factor: 7.7, JCR Q1 Top 4.2%) (Ack: NRF - RS-2023-00267476), 2024
 2. A Digital Twin-Based Heuristic Multi-Cooperation Scheduling Framework for Smart Manufacturing in IIoT Environment, *Applied Science* (EISSN 2076-3417, Impact Factor: 2.5, JCR Q2 Top 24.3%) (Ack: NRF-2019M3F2A1073386), 2023
 3. A Novel Smart Contract based Optimized Cloud Selection Framework for Efficient Multi-Party Computation., *Journal of Information Processing Systems*, (EISSN 2092-805X, Impact Factor: 1.6, Scopus), 2023
 4. Blockchain-Based Distributed Information Hiding Framework for Data Privacy Preserving in Medical Supply Chain Systems., *Sensors*, (EISSN 1424-8220, Impact Factor: 3.4, JCR Q2 Top 30.9%) (Ack:NRF-2019R1A2B5B0107041613 & UD210029TD), 2022
- Submitted work:
 - A Comprehensive Study of Quantum Computing Technologies in Smart City: Review and Future Directions, *Human-centric Computing and Information Sciences* (ISSN 1389-1286, Impact Factor: 3.9, JCR Q2 Top 26.3%) (Ack: NRF - RS-2023-00267476), 2024
- Participated in research projects (2021.09 – 2023.11) at Seoultech, Seoul, Rep. of Korea
 - Blockchain-Based Delegated Quantum Computing for Secure Industrial IoT Network Communication
 - Development of Secure and Efficient Cybersecurity Attack Response Technologies Using Quantum Machine Learning for Sustainable Wired and Wireless Communication Network Services
 - Research on Countering Stealthy Penetration Attacks
 - Real-Time Face De-identification Technology Enabling Same-Subject Linkage Analysis in Facial Recognition CCTV
 - Research on Smart City Network Architecture in a Deep Learning-Based Blockchain Distributed Environment

Professional Experience

- Technical Blog Experience (2019 – Present) at Alibaba Cloud Developer Community and CSDN, China. Subscriptions more than 20,000 and total number of visits is about 600,000.

Access Link: <https://chahot.blog.csdn.net/>

- *Alibaba Cloud Developer Community-Blogging Expert*: May, 2023
- *CSDN-Blogging Expert*: March, 2023
- *CSDN-Quality creator in the field of Cybersecurity*: June, 2022
- Examiner for the security section of the Korean Information Processing Technology Professional Certification Examination
- Book Publication: [Quantum Security: A New Era in Information Protection.] Published with the PHEI (Publishing House of Electronics Industry, the 4th-ranked publisher in the field of Chinese technology books), July 2024

Awards and Recognitions

- Scholarships
 - Received the university's "Scholarship for Outstanding Achievement for Foreigners" for each semester of my undergraduate studies (4 full scholarships and 4 half scholarships).
 - Received the university's "Scholarship for Outstanding Achievement for Foreigners" for each semester of my graduate studies (75% scholarships).
 - Received several Teaching Assistantship, Conference Grants, Journal Publication Incentives
- Best Paper Award in International Conference
 - The 13th International Conference on Computer Science and its Applications, Jeju, Korea, 2021
 - The 2022 World Congress on Information Technology Applications and Services Jeju, Korea, 2022
 - The 2023 International Conference on Big data, IoT, and Cloud computing, Jeju, Korea, 2023
- Recognitions in Technical Blog
 - *Alibaba Cloud Developer Community-Blogging Expert*: May, 2023
 - *CSDN-Blogging Expert*: March, 2023

Technical Skills

- Communication Systems
- Coding and applications: Qiskit, Python, Java, some C++
- Operating Systems: Windows
- Research Tools: OpenAI, Consensus, ChatPDF, Web of Science, Scopus, Google Scholar

- Software Tools: Docker, Wireshark, Nmap, Jupyter-Notebooks, GSN3, VMWare

Soft Skills

- Strong research and analytical abilities
- Detail-oriented and meticulous
- Capacity for sustained independent work
- Good communication and collaboration skills
- Perseverance and determination
- Passion for continuous learning and self-improvement
- Effective problem-solving skills
- Strong work ethic and dedication to quality
- Supportive and collaborative team player

References

- Dr. Qingming Zhao (Zqmzhao2009@sina.com). Former Deputy Director of the Research Institute of the China Financial Futures Exchange, Chief Economist in China, China
- Prof. Wenting Wei(wtwei@xidian.edu.cn), Associate Professor, School of Communication Engineering, Xidian University, China