WANG, Jiawen

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EDUCATION BACKGROUND

University of Chinese Academy of Sciences (UCAS) 09/2021 – 07/2024

- ✧ Master of Engineering in Cyberspace Security; **GPA: 3.92/4.00**
- ✧ Institute of Information Engineering

Yunnan University 09/2017 – 06/2021

- ✧ Bachelor Degree of Engineering in Networking Engineering; **GPA: 3.66/4.00 (Ranking: 4/62)**
- ✧ National Pilot School of Software

Professional Skills:

- ✧ Languages: Java (JSP), XML, Python, etc.
- ✧ Frameworks: Spring Boot, AngularJS, etc.
- ✧ Tools: MySQL, Ionic, Flask, etc.

PUBLICATION LIST

- ✧ **J. Wang,** J Jiang, M Yu, et al., Assessing Backdoor Risk in Deepfake Detectors, *2024 Twentieth Annual IFIP WG 11.9 International Conference on Digital Forensics* **(Under Review)**.
- ✧ Z. Xie, **J. Wang**, X. Hong, Z. Ma and K. Yin, A Blockchain-based Platform of Housing Provident Fund Asset-backed Securitization, *2022 IEEE Asia-Pacific Conference on Image Processing, Electronics and Computers (IPEC)*.
- ✧ B. Tian, X. Chen, **J. Wang**, et al., A Blockchain-based Trusted Testing System of Electric Power Materials, *2021 IEEE 29th International Conference on Network Protocols (ICNP)*.
- ✧ Y. Song, **J. Wang,** S. Yang, X. Zhu, K, Yin, A Blockchain-Based Scheme of Data Sharing for Housing Provident Fund. *2021 ICPCSEE.*

RESEARCH EXPERIENCE

Research on Backdoor Attack Assessment of Deepfake Detectors 11/2022 – Now

***Master Thesis**, Guided by Prof. JIANG Jianguo (UCAS), Affiliated to the National Key Project of Research on Evaluation Techniques and Standards for Forensics Identification System of Human Videos and Images*

- ✧ Proposed and designed a risk assessment method customized for Deepfake detectors.
- ✧ Used data poisoning to attack five common Deepfake detection models to expose the vulnerability.
- ✧ Designed an assessment method combining backdoor detection and repair technologies to measure the backdoor risk of a Deepfake detector, and tested the method.
- ✧ Obtained the experimental results to demonstrate the effectiveness of the proposed assessment method and suggested that existing Deepfake detectors are facing a common and highly harmful backdoor risk.
- ✧ Completed a paper of ***Assessing Backdoor Risk in Deepfake Detectors*** and submitted it to the Twentieth Annual IFIP WG 11.9 International Conference on Digital Forensics.

Intelligent Edge Devices-Based Object Recognition System for Construction Sites

***Graduation Project**, Guided by Prof. ZHAO Mingxiong, Yunnan University* 09/2020 – 06/2021

- ✧ Applied Python to build an online collaborative work system combined with intelligent edge devices based on Flask framework, implemented real-time identification and alarm of dangerous behaviors in construction sites.
- ✧ Employed dataset to verify the small target recognition algorithm based on a one-stage neural network and the skeleton-based spatio-temporal graph convolution behavior recognition algorithm.
- ✧ Adopted the Jetson Nano camera as an edge device to collect data, employed the TensorRT acceleration model to improve the real-time performance of recognition and detection. An edge device offloading mechanism is designed to ensure the balance of computing power pressure.
- ✧ Developed the available construction site target and behavior recognition system and obtained the honor of **Excellent Graduation Project.**

Development of Urban Intelligent Parking Lot Management System based on NB-IoT
Core Member*, *Guided by Prof. YI Chao, Yunnan University 05/2018 – 04/2021

- ✧ Combined NB-IoT (Narrow Band Internet of Things) technology with traditional ground locks to implement the real-time data transmission of ground locks, thus achieving parking place management.
- ✧ Designed planning algorithm to realize the optimal parking place recommendation for customers.
- ✧ Utilized Spring Boot to develop a webpage system, implemented application development based on Ionic Framework to achieve real-time display and management of parking lot and revenue status.
- ✧ Awarded the **Provincial Silver Award** during China College Students Internet+ Innovation and Entrepreneurship Competition as well as the **Excellent Project Award** in the SHEN CHUANG CUP International University Students Innovation and Entrepreneurship Competition.

Optimization of Expressway Operation Settlement Platform based on Blockchain Technology
Team Leader*, *Guided by Dr. CHEN Qingyi, Yunnan University 04/2018 – 06/2020

- ✧ Combined Blockchain distributed storage, and cryptography with the development of an expressway settlement platform to implement data management security and efficient and transparent management mode.
- ✧ Constructed the Blockchain data sharing platform based on Hyperledger Fabric and Hyperchain, applied SpringBoot to develop an available management platform, which can be used by three parties of car owners, expressway operators and expressway managers.
- ✧ Awarded **School Bronze Award** of China College Students Internet+ Innovation and Entrepreneurship Competition.

INTERNSHIP EXPERIENCE

Echaincity Technology Co., Ltd. 11/2020 – 02/2022
Intern in Technical Consulting Department*, *Guided by Dr. YIN Keting, Zhejiang University

- ✧ Participated in the compilation of the book ***Blockchain + Social Governance***, responsible for the collection of relevant materials and compilation of several sections.
- ✧ Participated in the development projects of Trusted Testing System of Electric Power Materials, Data Sharing and Asset-backed Securitization for Housing Provident Fund.
- ✧ Applied Hyperchain to build a Blockchain-based data-sharing platform, and adopted Kubernetes and Spring Boot, etc., to develop a complete and usable data-sharing platform.
- ✧ Developed a complete and usable system according to the needs of users in different fields, and constantly explored the application boundaries and innovation space of the Blockchain.
- ✧ Successfully published two papers as 2nd author and one paper as 3rd author.

HONOR & AWARD

11/2022	**1st Prize** of 8th MEI YA CUP China Digital Data Forensics Competition
10/2022	**2nd Prize** of CHANG AN CUP Digital Forensics Competition
12/2020	**1st Class** Scholarship of Yunnan University
07/2019	**Provincial Silver Award** of 5th China College Students Internet+ Innovation and Entrepreneurship Competition
07/2019	**School Bronze Award** of 5th China College Students Internet+ Innovation and Entrepreneurship Competition
12/2018	**1st Class** Scholarship of Yunnan University
08/2018	**Excellent Project Award** of 2nd SHEN CHUANG CUP International University Students Innovation and Entrepreneurship Competition