XU, Longyu

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Non-local, eligible to hold IANG VISA after graduation (June 2024)

EDUCATION

City University of Hong Kong

Hong Kong

Master of Science, Electronic Information Engineering

Sep.2023 - Jun.2024 (Anticipated)

• Relevant Courses: Software Engineering, Security Technology, Deep Learning, Complex Networks, Computer Vision

University of Electronic Science and Technology of China (UESTC)

Chengdu, China

Master of Engineering, Electrical Engineering

Sep.2018 - Jun.2021

- Thesis: Research on Security Control of Networked System Based on Sliding Mode
- Scholarships & SCI papers & Patents

Chongqing Jiaotong University (CQJTU)

Chongqing, China

Bachelor of Engineering, Telecommunications Engineering

Sep.2014 - Jun.2018

- Thesis: Communication system simulation based on e-Labsim (Text and voice transmission)
- National Scholarships & Awards & Honors

WORK EXPERIENCES

LeapXpert HK Limited

Hong Kong

IT & Security Engineer – Intern (Hybird)

*Jan.*2024 – *Feb.2024(2 months)*

- Migrate & maintain the SIEM system to Wazuh platform, implementing decoders and rules based on logs.
- Malicious activities detection & alerting based on IP reputation grading system.

Hong Kong Branch of National Precious Metals Material Engineering Research Center at CityU

Hong Kong

Web Developer & Assistant – Part time student helper (Hybird)

Nov.2023 – *Now*

- Maintain and update the official website of NPMM built with **HTML** and WordPress.
- Assist in processing office documents and analyzing data.

Zhongxing Telecommunication Equipment Corporation (ZTE)

Chongqing, China

Software Engineer – Full time (Onsite)

Jul.2021 - Dec.2022(1 year 6 months)

- Developed an ACL management **microservice** based on GoVPP using **Golang**, leveraging **Redis** for storing intermediate states. Registered **RESTful APIs** to an API gateway, achieving a unified access control solution.
- Designed and developed a log collection tool with Golang, uploading logs to a configured server via SFTP, providing a
 web-based configuration page built with Vue.js for seamless parameter setup. Additionally, an installation script
 written in Shell facilitates easy integration with other services.
- Led the development of a routing scheduling management microservice with Golang, which utilizes **Kafka** and Redis to capture upstream routing topology data changing. It calls the routing path calculation DLL through **CGO** and exposes RESTful APIs for downstream services to retrieve routes. It is packaged as a **Docker** image and deployed with **Kubernetes** for multi-instance deployment, ensuring scalability and high availability.

Shanghai BenPao Supply Chain Management Co., Ltd. (startup)

General Software Engineer – Intern (Remote)

Sep.2019 - Apr.2020(8 months)

- Developed a shopping mall-themed WeChat Mini Program using JavaScript based on the Mini Program documentation.
- Designed and Developed CRUD REST APIs for users using Python **Flask**, deploying service on a cloud platform and enhance service stability.

TECHNICAL SKILLS

- **Programming Languages:** Golang, JavaScript, Python, C, HTML
- Dev Frameworks & Tools: SQL, Redis, Kafka, Nginx, gRPC
- Cloud & Devops: AWS/Azure, Docker, Kubernetes, CI/CD, Jenkins, Microservice
- Miscellaneous: Linux, Git, Unit Testing, Scrum, SIEM

(China's) Qualification of Computer and Software Technology Proficiency: *Programmer; Information Security Engineer* (China's) National Computer Rank Examination: *C Language Programming; Network Technology*

SELECTED PROJECTS

Contract Test Platform Based on PICT Tool | Full stack developer

Led the development of an automated contract testing platform using the Microsoft PICT tool. The frontend was built with **React.js**, and the backend utilized **go-gin**. The platform provides user registration and login, hierarchical authority management, log management, and multi-level contract test case management. It caters to nearly **200** department members. With an impressive **95%** effective output test case rate and over **80%** coverage, the platform significantly reduces manual test case creation costs. It is also integrated into a CI/CD pipeline, expediting project iterations.

Relevant skills: Javascript(Reactjs), Antd, Golang, PostgreSQL, Nginx

BoMan Dance Information Management System | Full stack developer

Developed a user information management system for a dance club using the **Vue.js** with **Element UI**, the system encompasses functionalities such as login, registration, check-in, log recording, permission management, and dashboard with charts. Additionally, the system incorporates **WebSocket** for real-time communication, ensuring timely updates and notifications. The frontend and backend components are bundled together using **Electron**, enabling seamless integration.

Relevant skills: Javascript(Vuejs), Websocket, Electron-vue, ElementUI, MySQL

ACADEMIC ACHIEVEMENTS

- Chen, Yong & Xu, Longyu & Li, Meng. Sliding mode control for direct current motor system with multi-channels and external disturbances. Proceedings of the Institution of Mechanical Engineers, Part I: Journal of Systems and Control Engineering. (2021, JCR Q4, Student First Author)
- Xu, Longyu & Chen, Yong & Li, Meng. <u>Sliding Mode Resilient Control for TOD-based Servo System Under DoS</u>
 Attack. International Journal of Control, Automation and Systems. (2022, JCR Q2, First Author)
- Xu, Longyu & Chen, Yong & Li, Meng & Zhang, Longjie & Mahmoud, Gafary. Extended Observer-Based Hybrid Tracking Control Strategy for Networked System with FDI Attacks. Asian Journal of Control. (2023, JCR Q3, First Author)
- Li, Meng & Chen, Yong & Xu, Longyu & Chen, Zhangyong. <u>Asynchronous control strategy for semi-Markov switched system and its application</u>. Information Sciences. (2020, JCR Q1, assistant)
- Meng Li, Longyu Xu, Yong Chen, etc. A control method of multi-channel DC motor system based on second-order super-twisting sliding mode. China, Invention Patent. CN110620528A, December 27, 2019
- Meng Li, Yong Chen, Longyu Xu, etc. <u>An adaptive event-triggered asynchronous sliding mode control method for random jump systems</u>. China, Invention Patent. CN111650835A, September 11, 2020
- AnJian Zhou, Yong Chen, Longyu Xu, etc. <u>A data-driven vehicle electromagnetic interference suppression method</u>. China, Invention Patent, CN112084714A, December 15, 2020
- Meng Li, Longyu Xu, Longjie Zhang, etc. <u>An asynchronous control method of DC-DC converter</u>. China, Invention Patent, CN110429808B, January 26, 2021
- Meng Li, Yong Chen, **Longyu Xu**, etc. <u>A security control method of networked system based on extended observer</u>. China, Invention Patent, CN112596387A, April 2, 2021