

ZHU Zhouruixing (朱周睿星)

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EDUCATION

The Chinese University of Hong Kong, Shenzhen (CUHKSZ) **Shenzhen, China**

M.Phil. – Computer and Information Engineering; Supervisor: Prof. Pinjia He *Aug 2022-Present*

- **Research Interest:** AIOps, Log Analysis, Software Reliability.
- **Highlighted Courses:** Stochastic Process, Data Analytics, Image Processing and Computer, Selected Topics in Cloud Computing.

Nanjing University of Aeronautics and Astronautics (NUAA) **Nanjing, China**

Bachelor - Computer Science and Technology; GPA: 3.2/5.0 (Rank top 30%) *Aug 2016-June 2020*

- **Highlighted Courses:** Digital Image Processing, Formal Language and Automata Theory, Operating System, Database principle, Principle and Application of Software Engineering, Computer Network, Assembly Language.

EXPERIENCE

The Chinese University of Hong Kong, Shenzhen (CUHKSZ) **Shenzhen, China**

Research Assistant *Aug 2022-Present*

- **Root Cause Analysis:** Proposed a fine-grained root cause analysis framework for microservices, which leverages the potential relationship between service metrics and trace-based system anomaly degree to locate the root cause.
- **Hybrid Log Parser:** Proposes a log parser, which natively supports hybrid log parsing and has a human feedback integration mechanism that largely reduces unnecessary queries. Published a conference paper in ESEC/FSE'2023.
- **Logging Statement Generation:** Proposes an end-to-end logging statements generation framework based on instruction tuning paradigm of large language models (LLMs).
- **FaaS Provision Scheduler:** Proposes a differentiated method for runtime cold-start mitigation by optimizing serverless function provision.

Zhongxing Telecommunication Equipment Corporation (ZTE) **Nanjing, China**

Software Testing Engineer & DevOps Engineer (Full-time) *Jul 2020-Jul 2022*

- **Testing & Quality Assurance:** Led end-to-end testing activities, from requirements analysis to test case execution and defect tracking.
- **Infrastructure Management:** Established and maintained test environments and systems, ensuring seamless deployments.
- **Automation Expertise:** Designed and implemented an automated test framework, enhancing testing efficiency.
- **Continuous Integration:** Managed continuous integration processes to boost system reliability.

Huawei Technologies Co. Ltd. **Nanjing, China**

Software Develop Engineer (Internship) *Jul 2019-Oct 2019*

- **Embedded Systems Development:** Developed switch instructions using C language, contributing to the enhancement of system functionality.
- **Material Management Tool Creation:** Designed and implemented material management tools for efficient input of material information, real-time equipment utilization display, and proactive tracking of underutilized equipment.

HONORS AND AWARDS

- **Honors**

Outstanding Student Scholarship, Nanjing University of Aeronautics and Astronautics

2019

Postgraduate Academic Scholarship, Nanjing University of Aeronautics and Astronautics

2017-2019

- **Competitions Awards**

Network Security Competition (CTF) (Top 6/300), ZTE Corporation

2021

Top Ten Sports Star, Nanjing University of Aeronautics and Astronautics

2019

AI Practice Competition (Third-prize), School of Computer Science & Technology (NUAA)

2018

SKILLS

Languages: English, Mandarin

Coding: Python (proficient), C++, SQL

Modeling: Deep learning, Machine Learning

PUBLICATIONS

- [1] J. Xu, Q. Fu, **Z. Zhu**, Y. Cheng, Z. Li, Y. Ma, P. He, “Hue: A User-Adaptive Parser for Hybrid Logs,” in Proceedings of the ACM Joint Meeting on European Software Engineering Conference and Symposium on the Foundations of Software Engineering, 2023: 413-424, [CCF-A].
- [2] **Z. Zhu**, C. Lee, X. Tang, P. He, “HeMiRCA: Fine-Grained Root Cause Analysis for Microservices with Heterogeneous Data Sources,” in ACM Transactions on Software Engineering and Methodology, 2023, Under Revision, [CCF-A].
- [3] **Z. Zhu**, J. Xu, F. Yu, Y. Wu, B. Wang, P. He, “InsLog: An All-in-One Logging Approach with Instruction Fine-tuning,” in The International World Wide Web Conference, 2024, Under Review, [CCF-A].
- [4] C. Lee, T. Yang, **Z. Zhu**, Y. Su, P. He, and M. R. Lyu, “Spes: A differentiated scheduler for optimizing serverless function provision,” in Proceedings of IEEE International Conference on Data Engineering, 2024, Under Review, [CCF-A].