

JINYANG LIU

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🚩 RESEARCH INTERESTS

The research interests of Jinyang Liu is on AIOps in cloud systems, specifically encompassing various areas such as *large-scale log analysis, incident and ticket analysis, anomaly detection, and root cause analysis*. His recent work focuses on enhancing AIOps with large language models. During his Ph.D. studies, he has already **published 9 papers** in this field and currently has **4 papers** under review. According to his Google Scholar, his papers have been **cited for 758 times**. He is also a major contributor of the [LogPAI](#) and [OpsPAI](#) projects.

🎓 EDUCATION

The Chinese University of Hong Kong (CUHK), Hong Kong 2020 – 2024 (expected)
Ph.D. in Computer Science and Engineering
Supervisor: [Prof. Michael R. Lyu](#)

Sun Yat-Sen University (SYSU), Guangzhou, China 2018 – 2020
M.Eng in Computer Technology
Supervisor: [Prof. Zibin Zheng](#), Dean of the Software Engineering Department

Sun Yat-Sen University (SYSU), Guangzhou, China 2014 – 2018
B.E. in Software Engineering

✍️ WORKING EXPERIENCE

Huawei Cloud, Shenzhen, China 2022.06 – Present
Research Intern

- Large-scale log analysis (log parsing and anomaly detection) powered by large language models
- Large-scale cloud instance clustering (behavior profiling)
- Alert aggregation and root cause analysis for cloud incident
- Anomaly detection over multivariate monitoring metrics

Microsoft (MSRA), Beijing, China 2021.07 – 2022.03
Research Intern

- Customer ticket analysis and deduplication in Azure
- Incident management and understanding in Azure

Huawei 2012 Lab, Shenzhen, China 2018.01 – 2018.08
Research Intern

- Log-specific compression algorithm design
- User bug report deduplication for Huawei Phone
- Log parsing in Android systems

♥️ HONORS AND AWARDS

Outstanding Graduate	2020
National Scholarship	2019
Mathematical Contest in Modeling (MCM), Meritorious Winner	2017
First Class Academic Scholarship	2015

- 1. [Jinyang Liu](#), Zhihan Jiang, Jiazhen Gu, Junjie Huang, Zhuangbin Chen, Cong Feng, Zengyin Yang, Yongqiang Yang, Michael R. Lyu. [Prism: Revealing Hidden Functional Clusters from Massive Instances in Cloud Systems](#). To appear in proceedings of the 38th IEEE/ACM International Conference on Automated Software Engineering (ASE 2023, **CCF-A**)
- 2. [Jinyang Liu](#), Shilin He, Zhuangbin Chen, Liqun Li, Yu Kang, Xu Zhang, Pinjia He, Hongyu Zhang, Qingwei Lin, Zhangwei Xu, Saravan Rajmohan, Dongmei Zhang, Michael Lyu. [Incident-aware Duplicate Ticket Aggregation for Cloud Systems](#). In Proceedings of the 45th International Conference on Software and Engineering (ICSE 2023, **CCF-A**).
- 3. [Jinyang Liu](#), Jieming Zhu, Shilin He, Pinjia He, Zibin Zheng, and Michael R. Lyu. [Logzip: Extracting Hidden Structures via Iterative Clustering for Log Compression](#). In Proceedings of the 34th IEEE/ACM International Conference on Automated Software Engineering (ASE 2019, **CCF-A**).
- 4. [Jinyang Liu](#), Tianyi Yang, Zhuangbin Chen, Yuxin Su, Cong Feng, Zengyin Yang and Michael R. Lyu. [Practical Anomaly Detection over Multivariate Monitoring Metrics for Online Services](#). To appear in proceedings of the 34th IEEE International Symposium on Software Reliability Engineering (ISSRE 2023, **CCF-B**).
- 5. Jieming Zhu, Shilin He, Pinjia He, [Jinyang Liu](#), Michael R. Lyu. [Loghub: A Large Collection of System Log Datasets for AI-driven Log Analytics](#). To appear in proceedings of the 34th IEEE International Symposium on Software Reliability Engineering (ISSRE 2023, **CCF-B**)
- 6. Zhuangbin Chen, [Jinyang Liu](#), Yuxin Su, Hongyu Zhang, Xiao Ling, Michael R. Lyu. [Adaptive Performance Anomaly Detection for Online Service Systems via Pattern Sketching](#). In Proceedings of the 44th International Conference on Software and Engineering (ICSE 2022, **CCF-A**).
- 7. Zhuangbin Chen, [Jinyang Liu](#), Yuxin Su, Hongyu Zhang, Xuemin Wen, Xiao Ling, Yongqiang Yang, and Michael R. Lyu. [Graph-based Incident Aggregation for Large-Scale Online Service Systems](#). In Proceedings of The 36th IEEE/ACM International Conference on Automated Software Engineering (ASE 2021, **CCF-A**).
- 8. Jieming Zhu, Shilin He, [Jinyang Liu](#), Pinjia He, Qi Xie, Zibin Zheng, Michael R. Lyu. [Tools and Benchmarks for Automated Log Parsing](#). In Proceedings of the 41st International Conference on Software Engineering (ICSE 2019, SEIP track, **CCF-A**).
- 9. Yichen Li, Xu Zhang, Shilin He, Zhuangbin Chen, Yu Kang, [Jinyang Liu](#), Liqun Li, Yingnong Dang, Feng Gao, Zhangwei Xu, Saravan Rajmohan, Qingwei Lin, Dongmei Zhang, Michael R. Lyu. [An Intelligent Framework for Timely, Accurate, and Comprehensive Cloud Incident Detection](#). ACM SIGOPS Operating Systems Review.