

Feiran (Alex) Qin

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Education

North Carolina State University Ph.D. in Computer Science • Advisor: Prof. Marcelo d'Amorim	2023/08 - 2028/05 Raleigh, NC, USA
University of Illinois Urbana-Champaign Illinois-ShanghaiTech Exchange Program • Advisor: Prof. Tianyin Xu	2022/08 - 2023/01 Champaign, IL, USA
ShanghaiTech University B.S. in Computer Science and Technology • Undergraduate Research Advisor: Prof. Zhice Yang	2019/09 - 2023/06 Shanghai, China

Research Experience

North Carolina State University Improving Software Reliability, under the advisement of Prof. Marcelo d'Amorim • Developed an <i>LLM-based</i> fuzzing tool to identify bugs in contemporary C compilers.	2023/08 - Present Raleigh, NC, USA
University of Illinois Urbana-Champaign Optimizing Serverless Performance, advised by Prof. Tianyin Xu and Jovan Stojkovic • Implemented MXFaaS on KNative to efficiently <i>multiplex</i> resources for <i>concurrent</i> function invocations. • Open-sourced as MXFaaS , volunteer Contributions, earning all three ACM badges in ISCA' 23 artifact evaluation.	2022/08 - 2023/01 Champaign, IL, USA
ShanghaiTech University High-Performance Computing Core Member, HPC sysadmin, Advisor: Prof. Shu Yin • ISC'22 SCC : Led ICON challenge, optimizing MPI-bounded climate simulations in Niagara and Bridges-2 clusters, achieving a 30% performance improvement by reducing <i>mpi_wait</i> and enhancing <i>CPU affinity</i> . • MLSys : Developed an <i>DQN-based</i> scheduler to optimize HPC tasks response times via CUDA kernel profiling (<i>kernel2vector</i> transform) and traffic data learning, open-sourced as DASH (beta) .	2020/10 - 2023/06 Shanghai, China

Open-Source Contributions

ICON Climate Model Contributor, NCSU Team • Developed and integrated <i>OpenMPx optimizations</i> for the ICON project.	2024/04 icon-model
AnthoN Open Source Community Part-time Linux Maintainer • Updated and maintained package recipes for the AOSC OS Linux distribution.	2022/08 - Present AOSC OS

Professional Activities

- **OSDI/ATC 2024**: Artifact Evaluation Committee
- **EuroSys 2023**: Shadow Program Committee
- **SOSP 2023**: Artifact Evaluation Committee
- **OSDI/ATC 2023**: Artifact Evaluation Committee

Contests and Awards

• 8th place out of 19 <i>worldwide</i> , ISC 2024 Student Cluster Competition (Virtual), Hamburg, Germany	2024/05
• 4th place out of 12 <i>worldwide</i> , ISC 2022 Student Cluster Competition (Virtual), Hamburg, Germany	2022/06
• 2nd place , Intel Hackathon – Prize Money: 30,000 RMB, Beijing, China	2020/12

Last Updated: November 7, 2024