Feiran (Alex) Qin

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Education

North Carolina State University 2023/08 - 2028/05
Ph.D. in Computer Science Raleigh, NC, USA
- Advisor: Prof. Marcelo d'Amorim

University of Illinois Urbana-Champaign 2022/08 - 2023/01
Illinois-ShanghaiTech Exchange Program Champaign, IL, USA
- Advisor: Prof. Tianyin Xu

ShanghaiTech University 2019/09 - 2023/06
B.S. in Computer Science and Technology Shanghai, China
- Undergraduate Research Advisor: Prof. Zhice Yang

Research Experience

North Carolina State University 2023/08 - Present
Improving Software Reliability, under the advisement of Prof. Marcelo d'Amorim Raleigh, NC, USA
- Developed an *LLM-based* fuzzing tool to identify bugs in contemporary C compilers.

University of Illinois Urbana-Champaign 2022/08 - 2023/01
Optimizing Serverless Performance, advised by Prof. Tianyin Xu and Jovan Stojkovic Champaign, IL, USA
- Implemented MXFaaS on KNative to efficiently *multiplex* resources for *concurrent* function invocations.
- Open-sourced as MXFaaS, volunteer Contributions, earning all three ACM badges in **ISCA' 23** artifact evaluation.

ShanghaiTech University High-Performance Computing 2020/10 - 2023/06
Core Member, HPC sysadmin, Advisor: Prof. Shu Yin Shanghai, China
- **ISC'22 SCC**: Led ICON challenge, optimizing MPI-bounded climate simulations in Niagara and Bridges-2 clusters, achieving a 30% performance improvement by reducing *mpi_wait* and enhancing *CPU affinity*.
- **MLSys**: Developed an *DQN-based* scheduler to optimize HPC tasks response times via CUDA kernel profiling (*kernel2vector* transform) and traffic data learning, open-sourced as DASH (beta).

Open-Source Contributions

ICON Climate Model 2024/04
Contributor, NCSU Team icon-model
- Developed and integrated *OpenMPx optimizations* for the ICON project.

Anthon Open Source Community 2022/08 - Present
Part-time Linux Maintainer AOSC OS
- Updated and maintained package recipes for the AOSC OS Linux distribution.

Intern Experience

- **InsightFinder** (startup), SDE Intern, Full Time 2024/06 - 2024/08
- **Deemos Technologies Inc** (startup), SDE Intern, Part Time 2021/10 - 2022/04

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 *worldwide*, ISC 2024 Student Cluster Competition (Virtual), Hamburg, Germany 2024/05
- **4th place** out of 12 *worldwide*, 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 11, 2024