

# Rixin Liu

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CONTACT INFORMATION	South China University of Technology Guangzhou Higher Education Mega Centre Panyu District, Guangzhou, 510006	Phone: +86 19956289958 rixin.liu.coder@gmail.com <a href="https://bugeater.space/">https://bugeater.space/</a>
RESEARCH INTERESTS	I aim to enhance the security, reliability, and performance of current systems (Network System, ML System) through software modification (eBPF, framework customization) or by leveraging emerging hardware (programmable switch, DPU).	
EDUCATION	<b>South China University of Technology</b> - Project 985 B.Eng. Computer Science and Technology (11/164)	Sep. 2021 – Jun. 2025 GPA: 3.85/4.00
PUBLICATIONS	Themis: Efficiently Mitigating Congestion-Induced Fairness Disparities in Long-Haul RDMA Networks <b>Rixin Liu</b> , Menghao Zhang, Zihan Niu, Zili Meng, Xiaohe Hu <b>SOSP' 24 Poster</b>	
PROFESSIONAL EXPERIENCE	<b>Beihang University</b> Research Assistant (Mentor: Menghao Zhang) <ul style="list-style-type: none"><li>● <b>Investigated</b> several papers about providing RNIC performance isolation support in multi-tenant network virtualization schemes.</li><li>● <b>Developed</b> solution <i>THEMIS</i> to efficiently deal with Congestion-Induced Fairness Disparities in Long-Haul Remote Direct Memory Access (RDMA) Networks. <i>THEMIS</i> is a <b>fairness maintenance patch</b> without modifications to the infrastructures of existing DCs, via proactive notification points and temporary reaction points at external switch which connected datacenter and long-haul links.</li></ul> <b>MIT-6.828 Graduate Operating System Coursework</b>	Jun. 2024 - Now  Jan. 2024 – Mar. 2024 <ul style="list-style-type: none"><li>● <b>Built</b> a microkernel operating system by implementing various modules such as bootloader, memory management, interrupt handling, inter-process communication, user-mode file system, etc.</li><li>● <b>Realized</b> that ensuring malicious users do not disrupt the regular usage of innocent users and developing a management framework that is easy to upgrade and manage is crucial in a multi-tenant scenario.</li></ul>
AWARDS& HONOR	<b>Huawei Scholarship (1/91)</b> Awarding Institution: Huawei Technologies Co., Ltd.	Date: Dec. 2023  <b>Excellence Award</b> National Compiler System Design Contest Date: Aug. 2023  <b>Second-Class Scholarship (7/87)</b> Awarding Institution: South China University of Technology Date: Dec. 2022  <b>National Second Prize</b> National Mathematical Modeling Contest Date: May. 2022