

# Yiming Qiu

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CONTACT INFORMATION	Rice University 2222 Maroneal Street Houston, TX 77030	Phone: +1 (281) 236-8076 yq18@rice.edu <a href="https://yimingqiu.me/">https://yimingqiu.me/</a>
RESEARCH INTERESTS	I am broadly interested in systems, networking, and security, with a particular focus on the intersection of <b>programmable networks</b> with <b>machine learning</b> and <b>program verification</b> .	
EDUCATION	<b>Rice University</b> Ph.D. Candidate, Computer Science Advisor: Ang Chen	Aug. 2020 - May. 2025 (expected) GPA: 3.87/4.00
	<b>Beijing University of Posts and Telecommunications</b> B.S., Telecommunication Engineering (top 3%)	Aug. 2015 - May 2019 GPA: 3.81/4.00
PUBLICATIONS	Bedrock: Programmable Network Support for Secure RDMA Systems Jiarong Xing, Kuo-Feng Hsu, <b>Yiming Qiu</b> , Ziyang Yang, Hongyi Liu, and Ang Chen The 31st USENIX Security Symposium ( <b>USENIX Security 2022</b> )	
	Automated SmartNIC Offloading Insights for Network Functions <b>Yiming Qiu</b> , Jiarong Xing, Kuo-Feng Hsu, Qiao Kang, Ming Liu, Srinivas Narayana, and Ang Chen The 28th ACM Symposium on Operating Systems Principles ( <b>SOSP 2021</b> )	
	A Vision for Runtime Programmable Networks Jiarong Xing, <b>Yiming Qiu</b> , Kuo-Feng Hsu, Hongyi Liu, Matty Kadosh, Alan Lo, Aditya Akella, Thomas Anderson, Arvind Krishnamurthy, T. S. Eugene Ng, and Ang Chen The 20th ACM Workshop on Hot Topics in Networks ( <b>HotNets 2021</b> )	
	Toward Reconfigurable Kernel Datapaths with Learned Optimizations <b>Yiming Qiu</b> , Hongyi Liu, Thomas E. Anderson, Yingyan Lin, Ang Chen The 18th Workshop on Hot Topics in Operating Systems ( <b>HotOS 2021</b> )	
	Probabilistic Profiling of Stateful Data Planes for Adversarial Testing Qiao Kang, Jiarong Xing, <b>Yiming Qiu</b> , and Ang Chen the 26th ACM International Conference on Architectural Support for Programming Languages and Operating Systems ( <b>ASPLOS 2021</b> )	
	Clara: Performance Clarity for SmartNIC Offloading <b>Yiming Qiu</b> , Qiao Kang, Ming Liu, and Ang Chen The 19th ACM Workshop on Hot Topics in Networks ( <b>HotNets 2020</b> )	
	A Feasibility Study on Time-aware Monitoring with Commodity Switches <b>Yiming Qiu</b> , Kuo-Feng Hsu, Jiarong Xing, and Ang Chen Workshop on Secure Programmable Network Infrastructure ( <b>SPIN 2020</b> )	
RESEARCH EXPERIENCE	<b>Rice University</b> Research Assistant (Mentor: Ang Chen)	Jan. 2020 - Present
	<ul style="list-style-type: none"><li>• Research on machine learning support for complex systems, including automated SmartNIC offloading insights for network functions (SOSP'21, HotNets'20), infrastructure for in-kernel machine learning (HotOS'21).</li><li>• Research on programmable network security and reliability, including programmable network support for secure RDMA systems (USENIX Security'22) and network monitoring (SPIN'20), programmable data plane profiling (ASPLOS'21), runtime programmable network (HotNets'21).</li></ul>	
TECHNICAL SKILLS	Programming Languages: Python, C/C++, Java, P4, Matlab, $\LaTeX$ Hardware experience: Netronome CX SmartNIC, Barefoot Tofino programmable switch, Broadcom Stingray SmartNIC, Mellanox ConnectX RNIC	
OPEN SOURCE PROJECTS	Clara: <a href="https://github.com/824728350/Clara">https://github.com/824728350/Clara</a> Bedrock: <a href="https://github.com/alex1230608/Bedrock">https://github.com/alex1230608/Bedrock</a> P4wn: <a href="https://github.com/qiaokang92/P4wn">https://github.com/qiaokang92/P4wn</a>	
TEACHING EXPERIENCE	<b>Rice University</b> Teaching Assistant COMP536: Secure and Cloud Computing	Fall 2021, Fall 2020