Junqiao Qiu

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Education

2015 – present	**University of California, Riverside**, USA. Ph.D. in Computer Science Advisor: Prof. Zhijia Zhao
2011 – 2015	**Sun Yat-sen University**, China. B.S. in Electronics and Communications Engineering

Professional Experience

2018.6 – current	Research Associate at University of California, Riverside
2017.9 – 2018.6	Teaching Assistant at University of California, Riverside
2016.6 – 2016.9	Research Intern at Pacific Northwest National Laboratory

Research Interests

Programming Systems and Runtime Support for Parallel Computing

Parallelization for Data-intensive Applications

Programming Models for Irregular Applications

Honors and Awards

2020	ASPLOS 2020 Best Paper Award
2020	ACM SIGPLAN PAC Travel Grant ASPLOS
2019	Dissertation Year Program Award, University of California, Riverside
2019	NSF Travel Grants, CGO 2019
2019	Conference Travel Grants, University of California, Riverside
2017	Deans Distinguished Fellowship, University of California, Riverside
2016	NSF Travel Grants, PACT 2016

Teaching Experience

2018 Spring	Lab Instructor, CS 010 Introduction to Computer Science
2018 Winter	Teaching Assistant, CS 201 Compiler Construction
2018 Winter	Lab Instructor, CS 100 Software Construction
2017 Fall	Lab Instructor, CS 005 Introduction to Computer Programing

Publications

ASPLOS'20	**Junqiao Qiu**, Lin Jiang and Zhijia Zhao. Challenging Sequential Bitstream Processing via Principled Bitwise Speculation. *Accepted by the 25th International Conference on Architectural Support for Programming Languages and Operating Systems*, 2020. Acceptance rate 18% (86/476) Best Paper Award
TACO'20	Amir Hossein Nodehi Sabet, **Junqiao Qiu**, Zhijia Zhao, and Sriram Krishnamoorthy. Reliability Analysis for Unreliable FSM Computations. *Accepted by ACM Transactions on Architecture and Code Optimization*, 2020.
CGO'19	Ruiqin Tian*****, **Junqiao Qiu***, Zhijia Zhao, Xu Liu, and Bin Ren. Transforming Query Sequences for High-Throughput B+ Tree Processing on Many-core Processors. In *Proceedings of International Symposium on Code Generation and Optimization*, 2019. Acceptance rate 30.4% (21/69) (*co-primary)
ASPLOS'18	Amir Hossein Nodehi Sabet, **Junqiao Qiu**, and Zhijia Zhao. Tigr: Transforming Irregular Graphs for GPU-Friendly Graph Processing. In *Proceedings of the 23th International Conference on Architectural Support for Programming Languages and Operating Systems*, 2018. Acceptance rate 17.5% (56/319)
ICS'17	**Junqiao Qiu**, Zhijia Zhao, Bo Wu, Abhinav Vishnu and Shuaiwen Leon Song. Enabling Scalability-Sensitive Speculative Parallelization for FSM Computations. In *Proceedings of the International Conference on Supercomputing*, 2017. Acceptance rate 15.8% (28/177)
PACT'16	**Junqiao Qiu**, Zhijia Zhao, and Bin Ren. MicroSpec: Speculation-centric fine-grained parallelization for FSM computations. In *Proceedings of the 25th International Conference on Parallel Architecture and Compilation Techniques*, 2016. Acceptance rate 26% (31/119)
ICSAI'14	**Junqiao Qiu**, Weibing Li, Yunong Zhang, Senbo Fu, and Hongzhou Tan. Two numerical algorithms and numerical experiments for efficiently solving inequality-and-bound constrained QP. In *Proceedings of the International Conference on Systems and Informatics*, 2014. Published during undergraduate at SYSU

Talks

2020.02	"*Model-Centric Speculative Parallelization for Scalable Data Processing*", College of William and Mary, Williamsburg, Virginia, USA.
2017.06	"*Enabling Scalability-Sensitive Speculative Parallelization for FSM Computations*", International Conference on Supercomputing, Chicago, Illinois, USA.
2016.09	"*MicroSpec: Speculation-centric fine-grained parallelization for FSM computations*", International Conference on Parallel Architectures and Compilation, Haifa, Israel.
2016.08	"*Scalability-Driven Performance and Energy Analysis as well as Optimization for FSM*", Pacific Northwest National Laboratory, Richland, Washington, USA.

Professional Services

Paper Reviewer	PPoPP'20, TACO'19, HiPC'19, NPC'19, ISC'19, JPDC'18, HiPC'18, ICS'18, HiPC'17, HIPS'17, IPDRM'17, CF'17
Other Services	Artifact Evaluation Committee Member in OOPSLA'19
	co-Coach of UCR team for ACM International Collegiate Programming Contest (ICPC) 2017