

ZIRUI ZHANG

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PLACEHOLDER WEBSITE

EDUCATION	Department of Computer Science, Purdue University <i>M.S. in Computer Science</i> Research Advisor: Dr. Daniel Aliaga	West Lafayette, Indiana 2025 - 2027 (<i>expected</i>)
	Department of Computer Science, Purdue University <i>B.S. in Computer Science</i>	West Lafayette, Indiana 2021 - 2025

PUBLICATIONS	1. Zirui Zhang , Kathleen Degnan, Tony Mallen-Ntiador, Tabitha C. Peck, Voicu Popescu. Influence of Virtual Reality Avatar Hand Representation on Task Performance. <i>IEEE Transactions on Visualization and Computer Graphics (TVCG)</i> 2026).	
	2. Zirui Zhang , Pravin Mahendran, Kevin Zhang, David E. Bernal Neira. Towards Maximum Independent Set Inspired Dataset Reductions with Neutral Atom Quantum Computers. <i>IEEE International Conference on Quantum Computing and Engineering (QCE)</i> 2026)	
	3. Zirui Zhang , Kevin Zhang. Boundary-Conditioned Inpainting for Constraint-Consistent Procedural Generation Completion. <i>Proceedings of the SIGGRAPH Asia 2025 Technical Communications (SIGGRAPH ASIA TC)</i> 2025).	
	4. Zirui Zhang . Towards Hybrid Spatial Structure Rendering Models Using Quantum Orthographic Ray Casting. <i>IEEE International Conference on Quantum Computing and Engineering (QCE)</i> 2025).	
	5. Kabir Batra, Zirui Zhang , Shuwen Yang, Arnima Agrawal, Yiyin Gu, Bedrich Benes, Alejandra Magana, Voicu Popescu. XRXL: A System for Immersive Visualization in Large Lectures. <i>The 32nd IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR)</i> 2025).	
	6. Voicu Popescu, Elisha Sacks, Zirui Zhang , Jorge Vazquez. Complex Virtual Environments Through Continuous Visibility Computation. <i>The 32nd IEEE Conference on Virtual Reality and 3D User Interfaces (IEEE VR)</i> 2025).	
	7. Zirui Zhang , Shannon Cheng, Kevin Xiao, Priyam Gupta, Sean Ruda. Towards Wave Function Collapse using Optimization with Quantum Algorithms. <i>Proceedings of the SIGGRAPH Asia 2024 Technical Communications (SIGGRAPH ASIA TC)</i> 2024).	
	8. Zirui Zhang , Sruti Karumanchi, Tabitha C. Peck, Voicu Popescu. XR Support for Instructor Student Awareness in Large Lectures. (<i>UNDER REVIEW</i>)	

RESEARCH AND EXPERIENCE	Purdue University Department of Computer Science Research Assistant	May 2025 - Present
	Purdue University Department of Computer Science Undergraduate Research Assistant	Sept 2024 - May 2025
	Northwestern University McCormick School of Engineering Research Assistant	May 2024 - Dec 2024
	Purdue University School of Electrical and Computer Engineering Undergraduate Teaching Assistant	Aug 2022 - May 2025

AWARDS AND HONORS	• First Place , MIT iQuHACK Hackathon (QuEra)	2024
	• Fall Undergraduate Research Expo Distinction , Purdue University	2024
	• Quantum Summer Research Scholarship , IQ-PARC	2022 - 2023
	• Dean's List & Semester Honors , Purdue University	2021 - 2026
TALKS	1. U-Tree: Cyberinfrastructure for Urban Tree Resilience and Environmental Effort. <i>The Applications & Solutions in Digital Forestry International Conference</i> , 2026.	
	2. Dataset Preprocessing with Rydberg Atom Quantum Computers for Supervised Classification. <i>Purdue Quantum Artificial Intelligence Workshop</i> 2025.	
	3. Quantum Game Club hands-on quantum programming session. <i>Northwestern Undergraduate Quantum Summer School</i> , 2024.	
	4. Procedural Generation Via Quantum Optimization. <i>Purdue Fall Undergraduate Research Expo</i> , 2024.	
	5. Introduction to Quantum Computing. <i>IBM Qiskit Fall Fest at Purdue</i> , 2023.	
	6. Hands-On Quantum Programming: The Student Experience. <i>DoD STEM Exchange</i> , 2023.	
ACADEMIC SERVICES	• Served as reviewer for ACM CHI, ACM HAI, IEEE ToG	
SKILLS	Languages: English, Chinese.	
	Programming: Python, C/C++, C#, Java, MATLAB.	
	Tools & Frameworks: PyTorch, OpenCV, OpenGL, Unity, Unreal, CUDA, Git.	
REFERENCES	Daniel G. Aliaga Associate Professor of Computer Science <i>Purdue University, West Lafayette</i> aliaga@cs.purdue.edu	
	Voicu Popescu Associate Professor of Computer Science <i>Purdue University, West Lafayette</i> popescu@cs.purdue.edu	
	David Bernal Neira Assistant Professor of Chemical Engineering <i>Purdue University, West Lafayette</i> dbernaln@purdue.edu	