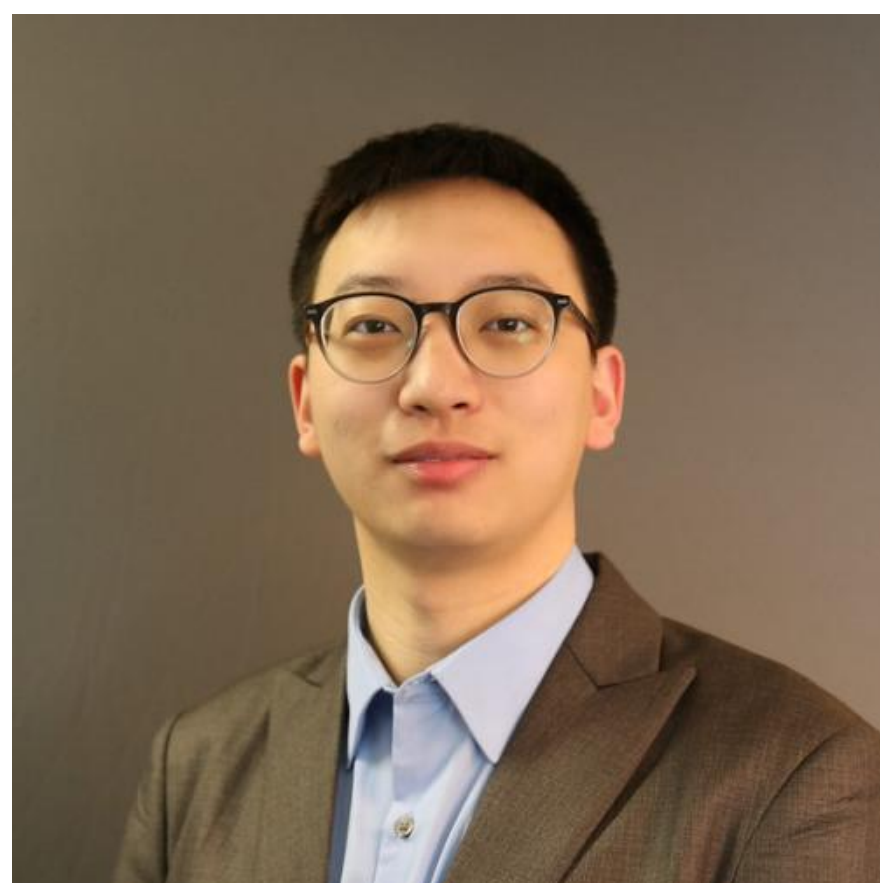




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via My Homepage



Jinming Zhuang

- Assistant Professor @ RIT Computer Engineering;
- Ph.D. @ Brown University, ECE;
- B.Eng. @ UESTC, EE;

Two Fully Funded Ph.D. Positions – Spring/Fall 2027

About the PI

Jinming Zhuang is a tenure-track Assistant Professor in the Department of Computer Engineering at the Rochester Institute of Technology (RIT). He received his B.Eng. from the University of Electronic Science and Technology of China (UESTC) in 2021 and completed his Ph.D. at Brown University in 2026. His research interests include **Heterogeneous Computing, Compiler Optimization & Programming Abstraction for Hardware, and AI HW/SW Co-design.**

To Perspective Students

Earning a Ph.D. is a challenging journey of learning, exploration, and discovery. I value **self-motivated students** who are genuinely curious about their research and excited by its potential impact. Below are several intriguing questions. If you envision yourself enjoying tackling these problems, our group may be a good fit.

- **Architecture:** How can we tackle the memory wall through better data orchestration within and across devices by identifying and leveraging the key features of FPGAs, GPUs, CPUs, and emerging hardware?
- **Compiler:** How can AI models defined in PyTorch be automatically lowered to heterogeneous systems with formally verified correctness and high hardware efficiency?
- **HW/SW Co-design:** From a hardware perspective, what will future AI models look like (numerical data types, customized structures, etc.) to achieve lower latency and better energy efficiency?

Students from **EE, CS**, and related fields are welcome to apply. Background in computer architecture, digital/VLSI design, compilers, or machine learning is preferred, along with experience in RTL/HLS, LLVM/MLIR, or polyhedral analysis. These can be skills you already have or advanced topics you will learn and develop with hands-on, side-by-side guidance throughout your Ph.D. study.

About School and Our Lab

RIT is a private research university in Rochester, New York. It is ranked No. 88 among National Universities, No.57 for undergraduate engineering, and No.76 for graduate engineering by U.S. News in 2026. Students have full access to 100 A100 and 128 GH200 GPUs. Our lab also has access to the latest FPGA platforms, including AMD V80, VHK158, VEK280, and VCK190, with HBM- and AIE-equipped devices. Our lab will continue to seek collaborations with industry partners such as AMD to expand research opportunities.

How to Apply

Prospective students are encouraged to email me at jxzeec@rit.edu with: **1) CV; 2) unofficial transcripts; and 3) a short (~ 1-page) research statement** describing your interests and potential fit. Please use the subject line: **Ph.D. Applicant - [Your Name] - [Spring/Fall 2027].**