

Nuoyan Wang

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EDUCATION

University of Illinois Urbana-Champaign

Bachelor of Science in Computer Engineering

Master of Science in Electrical and Computer Engineering

GPA: 4.00/4.00

Aug 2021 – May 2024

Aug 2024 – May 2026 (Expected)

EXPERIENCE

Graduate Teaching Assistant

University of Illinois Urbana Champaign

Aug 2024 – Present

Champaign, IL

- Leading 30 students by hosting weekly demo sessions and administering the weekly class quizzes
- Graded 16 groups based on their demo results, quiz performance, and content and quality of lab reports

Software Engineering Intern

GoClouds

Jun 2023 – Aug 2023

Beijing, China

- Full-Stack creation of AI chatbot working in conjunction with the company backend data stored in AWS S3
- Incorporated digital human demos across 6 AI providers, and communicating with managers for design choices

Technology Research Intern

Lenovo Group

May 2023 – July 2023

Remote

- Conducted technology research and market analysis on cloud services across Google, Azure, AWS
- Constructed weekly 30-min formal presentations to discuss findings with managers and update reports

PROJECTS

Out-of-Order CPU Competition | *SystemVerilog, RISC-V, Verdi, Design Verification, Git*

Apr 2024

- 1st place of 36 teams at UIUC, graded on 11 benchmarks like chip area, power usage, runtime, and IPC
- In a team of 3, we designed and optimized a register-renaming out-of-order CPU in SystemVerilog
- Implemented early branch recovery, pipelined cache + daddda mul/div, GShare BP, BTB, load-store queue

Convolutional Neural Net on GPU | *C, CUDA, Image Processing, AI/ML, Git*

Nov 2023

- Utilized GPU benefits on CNN with featuring variable strides, shared memory, streaming, and unrolling
- Placed in Top 20 on competition leaderboard, maxing available optimization points and speed

Mini-Linux Operating System | *C, Git*

Mar 2023

- Created a Linux-based OS, featuring interrupts, system calls, filesystems, scheduling, terminal

FPGA Music Synthesizer | *SystemVerilog, Quartus, FPGA Design, Analog Circuits*

Dec 2022

- Achieved max 10/10 difficulty & A+, recognized at end-of-year showcase for outstanding creativity
- Constructed embedded music synth on FPGA with a system-on-chip, and audio signals on GPIO

RELEVANT COURSEWORK

Data Structures	Models & Algorithms	Operating Systems	Distributed Systems	Parallel Programming
Digital Signal Processing	Artificial Intelligence	Machine Learning	Computer Vision	

TECHNICAL SKILLS

Programming: Python, C, C++, CUDA, SystemVerilog, Intel x86, Java, JavaScript

Developer Tools: Git, VSCode, Verdi, Intel Quartus, FPGA Design, Testbenching

Technologies: PyTorch, TensorFlow, Image Processing, RISC-V, Design Verification

HONORS & AWARDS

University High Honors Bronze Tablet Graduate: Top 3% of Grainger College of Engineering Graduates in 2024

Bradley A Simmons Memorial Scholarship Award: 5 Selected Recipients in UIUC's ECE Department in 2023