JhihYang Wu

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Education

University of Arizona | Tucson, AZ — August 2025 - May 2026
Master of Science in Electrical and Computer Engineering — GPA: 4.00/4.00

University of Arizona | Tucson, AZ — August 2021 - May 2025
Bachelor of Science in Computer Science & Electrical and Computer Engineering — GPA: 4.00/4.00

Skills

Areas: Deep Learning, Computer Graphics, 2D/3D Computer Vision, LLMs, Reinforcement Learning, Image Processing, Algorithms, Compilers, Computer Architecture, OS, Networking, Databases, Data Science
Programming Languages: Python, C++, C, Java, C#, HTML, CSS, JavaScript, MIPS Assembly, Verilog, Oracle SQL, GLSL, MATLAB, CUDA
Tools and Frameworks: PyTorch, Vivado, Django, Keras, Unity, NumPy, Matplotlib, OpenCV, OpenGL

Experience

Research Assistant — August 2025 - Present
- Conducting research on 3D scene generation, signal and image processing, tomography, 3D Reconstruction, and applications in SAR, Sonar, and IR
- In process of writing papers related to 3D scene completion and physics-aware diffusion models

xAI - Software Engineering Specialist — January 2025 - August 2025
- Improved Grok's coding capabilities by designing and curating high-quality learning environments
- Found and patched Grok's pitfalls in coding
- Developed software that made Grok Thinking and Grok Code possible

ASML - Senior Design [Pictures] — September 2024 - May 2025
- Developed from scratch an optics simulation software for our Shack–Hartmann wavefront sensor setup using C++ and OpenGL

Undergraduate Research Assistant — February 2024 - January 2025
- Conducted research on NeRFs, Diffusion Models, 3D Reconstruction, 3D Gaussian Splatting
- Replicated and extended the GeNVS paper for SAR, Sonar, and IR applications

Publications

A. Berian, D. Brignac, J. Wu, N. Daba, A. Mahalanobis, "CrossModalityDiffusion: Multi-Modal Novel View Synthesis with Unified Intermediate Representation", GeoCV Workshop, WACV 2025
A. Berian, J. Wu, D. Brignac, N. Daba, A. Mahalanobis, "ViewAttention: Pay Attention to Where You Look", Workshop of Generative AI for World Simulations and Communications, ICIP 2025

Projects

KewlAI [GitHub] — June 2024 - Present
- Reimplementation of cool deep learning algorithms such as Animate Anyone, DQL, Llama 2, NeRF, etc

miniRT [GitHub] — May 2024 - May 2024
- Powerful ray tracer I built from scratch using just C++ and math

minigrad [GitHub] — June 2023 - July 2023
- PyTorch clone from scratch using just Python and NumPy