

Xuming Huang

University of Wisconsin–Madison • B.S. Candidate, Computer Science

Email: xuming@cs.wisc.edu • Website: <https://xuming.ai> • GitHub: <https://github.com/mac-huang> •

LinkedIn: <https://www.linkedin.com/in/xuminghuang/>

September 11, 2025

Apple

Attn: AIML University Recruiting Team

One Apple Park Way

Cupertino, CA 95014

Dear AIML University Recruiting Team,

I am a junior in Computer Science at the University of Wisconsin–Madison, writing to express my interest in Apple’s Machine Learning / AI Internships within the AIML organization. I’m excited by Apple’s integrated hardware–software approach and commitment to privacy, and I want to contribute to ML experiences that serve users responsibly while pushing the state of the art.

My work sits at the intersection of ML and systems. On the systems-for-ML side, I’m building a heterogeneous CPU–GPU task scheduler in C/CUDA with cuBLAS optimizations and memory pooling to dispatch work based on compute and transfer characteristics. On the ML-for-systems side, I’m developing LinuxGuard, an AI-assisted kernel security analysis pipeline with a RAG-enhanced detector (~72% precision on vulnerability patterns) and clustering (K-means, TF-IDF) to surface anti-patterns. I also explored multispectral U-Net segmentation (preprint) and created deep-dive tutorials on Transformers and GPT that emphasize clarity, measurement, and reproducibility.

I enjoy turning ideas into rigorous, user-understandable artifacts. I’ve built interactive visualizations—CPU cache hierarchy simulator, heap allocator visualizer, compiler pipeline demo, and graph/sorting algorithm tools—that communicate complex concepts and make experimentation easy. These projects reflect habits I bring to ML research and engineering: define the problem precisely, set up clean experiments, measure carefully, and iterate quickly.

Previously, I interned at CoolAI, where I developed polished demos for a China Business Network (CBN) interview and represented the company at the World Artificial Intelligence Conference (WAIC). Working across teams and under tight timelines taught me to communicate clearly, prioritize, and deliver.

Academically, I completed Stanford’s CS107 (Computer Organization & Systems, A+) and CS161 (Design & Analysis of Algorithms, A). I’m comfortable with Python and PyTorch/TensorFlow, and I’m eager to deepen skills in Swift and Core ML for on-device learning. I care about optimization (quantization, memory use, latency) and about responsible AI dimensions like privacy and accessibility—areas where Apple leads.

I would be thrilled to collaborate with Apple researchers and engineers to design and implement meaningful ML solutions, present results to AIML leadership, and, where appropriate, contribute to publications. I will be returning to school after the internship and am eligible across U.S. locations listed for AIML roles.

Thank you for your time and consideration. I’d welcome the opportunity to discuss how my background in ML and systems—and my enthusiasm for privacy-preserving, on-device ML—can contribute to the AIML organization.

Sincerely,

Xuming Huang