

Xuming Huang

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<https://xuming.ai>

Innovative CS undergrad exploring the edge of AI and systems. Passionate about turning bold ideas into research where LLMs meet low-level code. Thrives in boundary-pushing exploration, yet grounded in rigorous execution.

EDUCATION

UNIVERSITY OF WISCONSIN-MADISON

Honor in Computer Sciences & Computer Engineering

GPA: 4.0/4.0

Madison, WI

Jan 2025 – Present

STANFORD UNIVERSITY

Visiting Scholar (CS 107 Comp Org & Sys, CS 161 Algorithms)

GPA: 4.0/4.0

Stanford, CA

Jun 2025 – Aug 2025

UNIVERSITY OF SHANGHAI FOR SCIENCE AND TECHNOLOGY

Computer Science and Technology

Major GPA: 4.5/4.5

Shanghai

Sep 2023 – Dec 2024

Core Courses: Computer Organization, Operating Systems, Data Structures, Computer Networks, Machine Learning, Artificial Intelligence, Programming Abstractions.

RESEARCH EXPERIENCE

LinuxGuard: AI-Powered Kernel Security Analysis

Research Assistant (Supervised by Prof. Remzi Arpaci-Dusseau and Vinay Banakar)

Madison, WI

Jan 2025 – Present

- Built AI pipeline processing Linux commits to generate static analyzers
- Developed RAG-enhanced LLM system achieving 72% precision in kernel vulnerability detection
- Applied ML clustering (K-means, TF-IDF) to derive high-confidence vulnerability anti-patterns

Heterogeneous Task Scheduler for CPU-GPU Systems

Independent Research Project

Stanford, CA

Jun 2025 – Present

- Building C runtime system auto-scheduling computational tasks between CPU/GPU
- Implementing CUDA kernels with cuBLAS optimization and memory pooling

Multispectral U-Net Segmentation Research

Research Assistant (Supervised by Prof. Xing Hu)

Shanghai

Oct 2024 – May 2025

- Contributed to development of EKV-Net for plant disease segmentation
- Supported experimental setup and analysis on pest/disease region segmentation

Image Classification Algorithm Analysis

Research Assistant (Supervised by Prof. Dunlu Peng)

Shanghai

Jan 2024 – Jun 2024

- Compared traditional ML methods (SVM, KNN, Random Forest) with CNN (81.3% accuracy)
- Implemented 2-stage inference using ResMacNet; achieved 13% improvement

INTERNSHIP EXPERIENCE

Apple <i>NLP Algorithm Intern</i>	Remote <i>Oct 2024 – Dec 2024</i>
<ul style="list-style-type: none">Assisted in improving App Store personalization through NLP-driven searchContributed to development of multilingual translation for FaceTime	
Cool AI Technology <i>Technical R&D, Product Dev & Ops</i>	Shanghai <i>Jul 2024 – Sep 2024</i>
<ul style="list-style-type: none">Implemented web interface using Next.js and Tailwind CSSDeveloped backend services with FastAPI for LLM integrationContributed to deployment of AI-Hub project	

PROFESSIONAL SKILLS

Languages: English (Fluent), Mandarin (Native)
Programming: Python, C/C++, Assembly, Java, JavaScript
Tools: Git, Linux, FastAPI, Docker
Research: LLMs, Computer Systems/Architectures
Soft Skills: Research Methodology, Technical Writing, Problem Solving

HONORS & AWARDS

- Dean’s List, UW-Madison – Academic Outstanding
- Presidential Scholarship, USST – Academic Excellence
- Merit Scholarships, USST – Top 5%

EXTRACURRICULAR ACTIVITIES

Flag Football Team <i>Team Leader & Quarterback</i>	Shanghai <i>Oct 2021 – Jun 2024</i>
Shanghai Wangbo Sports Consulting <i>Flag Football Coach & Program Manager</i>	Shanghai <i>Dec 2021 – Mar 2023</i>