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Koutian Wu

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Flexible with relocation

ML Modeling, AI Agent Development/Test/Evaluation, Full-Stack Engineering

2+ Years work experience (US / China); 4+ Years research and programming experience.

EDUCATION

PhD Student	AI for Geosciences, University of Texas at Austin	2024 – expected May 2029
	GPA 3.9/4.0, Teaching Assistant for 260+ students, instructor rating ~ 4.5/5	
B.S. in Geosciences (Honors Class)	University of Science and Technology of China	2020 – 2024
	Nominee of the Highest Honor for USTC undergrads (one of the two ESS School nominees)	
	Founded one of the largest student clubs, grew from 0 to 1,200+ members [News]	

WORK EXPERIENCE

AI Intern, AI Agent Knowledge Base Evaluation	PineAI (Singapore) Remote Jul. 2025 – Aug. 2025
• Built an evaluation system from scratch for multi-dimensional assessment of PineAI Agent's knowledge base.	
• Developed a data sanitization module achieving 80%+ accuracy on 1,000+ PineAI Agent call sessions.	
• Implemented a Q&A extraction module to reach 60%+ knowledge extraction accuracy for evaluation dataset.	
• Designed a multi-dimensional evaluation engine using LLM-as-a-judge method with concurrent processing.	
Full-Stack Intern, AI Text Processing System	ZaiwenAI Beijing, China Jun. 2025 – Jul. 2025
• Acted as multiple roles in the startup, from design to deployment. [Code] (non-company business) [Demo]	
• Developed the MVP of AI-footprint detection, removal, and plagiarism checking for students and researchers.	
• Built a RESTful backend with FastAPI and an asynchronous task queue with Celery + Redis, +65% efficiency.	
• Created a Vue.js frontend with multi-format document upload, SSE-based real-time LLM response streaming.	
Research Assistant, ML Model Development	UT-Austin Austin, TX Aug. 2025 – Present
Project Admin, High Performance Computing Allocation	NSF NCAR Remote Aug. 2025 – Present
• Tech Stack: Physics-ML integrated modeling and machine learning parameter calibration.	
• Applied for and funded by the NSF NCAR's 1k GPU hrs, 22k CPU hrs high performance computing allocation.	
• Designed a framework to improve the efficiency of site-level parameter calibration using Scikit-learn.	
• Architecting a model framework delivering AI-powered precision, physics-powered interpretability.	
Full-Stack Developer, UT01 Navigation Page	Independent Hybrid Jun. 2025 – Present
• Tech Stack: Jekyll, JS/HTML/CSS Impact: 10,700+ visits [Code] [Website]	
• Created a unified resource platform for UT Austin's fragmented campus services based on user research.	
• Applied SEO methods to enhance the exposure rate; optimized frontend for cross-device compatibility.	
Visiting Scholar, High Altitude Observatory	NSF NCAR Boulder, CO Jul. 2023 – Dec. 2023
• Simulated global atmospheric wave propagation, detecting 2 distinct wave modes from Hunga-Tonga eruption.	
• Integrated simulation/observation via wavelet analysis, advancing understanding of extreme volcanic events.	
• First-authored presentation at a NASA Science Workshop and AGU Meeting. [Code] [Abstract]	

PUBLICATIONS

1. Wu, K., Yi, W.*, Xue, X.*, Reid, I., & Lu, M. (2024). Diurnal and seasonal variations of meteor speed and arrival angle observed by Mengcheng meteor radar. *JGR: Space Physics*. [\[Paper\]](#) [\[Data\]](#)
2. Wu, K.*, Xu, X., Jiang, J., & Shen, A. (2024). A Summary Report on the Space Physics Practical Education in 2022. *Rev Geophys and Planetary Phys.* [\[Paper\]](#) [\[News\]](#)

SKILLS

- **Programming:** Python, JavaScript, React, FastAPI, Node.js, PostgreSQL, Redis, GCP, Docker, MATLAB
- **AI/ML:** AI Agent Development, ML Model Research, LLM Integration, Prompt Engineering



Resume PDF