

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

2+ years work experience (US/International); 4+ years research and programming experience.

EDUCATION

Ph.D. Student in AI for Geosciences	University of Texas at Austin	2024 – Expected: May 2029
GPA 3.9/4.0 TA for 1,000+ students (4.5/5.0 instructor rating)		
B.S. in Geosciences (Honors Class)	University of Science and Technology of China	2020 – 2024
Nominee of the Highest Honor for USTC undergraduates (one of the two ESS School nominees) Founded one of the largest student clubs, grew from 0 to 1,300+ members. [News]		

WORK EXPERIENCE

AI Intern, AI Agent Knowledge Base Evaluation	PineAI (Singapore) Remote Jul. 2025 – Aug. 2025
• Implemented multi-dimensional evaluation system from scratch for PineAgent's RAG knowledge base.	
• Developed data sanitization module removing 2,000+ PII entries and noise from 1,000+ call sessions.	
• Extracted 3,000+ Q&A pairs (knowledge/method/strategy) from call sessions to form the evaluation dataset.	
• Deployed concurrent LLM-as-judge + rule-based engine, measuring P/R/F1 to enable RL optimization.	
Full-Stack Intern, LLM Text Processing System	ZaiwenAI Beijing, China Jun. 2025 – Jul. 2025
• Fulfilled multiple roles in the startup, from design to deployment. [Code] (non-company business) [Demo]	
• Developed 3-module MVP: LLM-footprint detection, removal, and plagiarism checking for researchers.	
• Built a RESTful backend with FastAPI and an asynchronous task queue with Celery + Redis.	
• Created a Vue.js frontend with 9-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
• Integrated machine learning parameter calibration for a SOTA physics-based land surface model (Noah-MP).	
• Enhanced efficiency of traditional Monte Carlo parameter calibration with a scikit-learn framework.	
• Applied for and funded by NSF NCAR's 1k GPU + 22k CPU hours high performance computing allocation.	
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]	
Full-Stack Developer, UT01 Navigation Page	Independent Hybrid Jun. 2025 – Present
• Consolidated 80+ campus resources across 11 categories based on student navigation patterns. [Code] [Website]	
• Drove 10,800+ visits through SEO optimization; optimized HTML/SCSS frontend for cross-device compatibility.	

PUBLICATIONS

1. **Wu, K.**, He, C., & Yang, Z.-L.* (in preparation). Noah-Agent: A Multi-Expert AI Agent Framework for Automated Parameterization and Validation over 100K-Line Scientific Codebases.
2. **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*. [\[Paper\]](#) [\[Code\]](#) [\[Data\]](#)
3. **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*. [\[Paper\]](#) [\[Code\]](#) [\[News\]](#)

SKILLS

- **Programming:** Python, FastAPI, SQL, Redis, Docker, HPC, AWS/GCP, JavaScript, React, MATLAB



Resume PDF