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

2+ Years work experience; 4+ Years research and programming experience with Python and MATLAB.

EDUCATION

PhD Student	AI for Geosciences, University of Texas at Austin Teaching Assistant for 260+ students, instructor rating ~ 4.5/5	2024 – expected May 2029
B.S. in Geosciences (Honors Class)	University of Science and Technology of China 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]	2020 – 2024

WORK EXPERIENCE

AI Intern, AI Agent Knowledge Base Evaluation	PineAI (Singapore) Remote Jul. 2025 – Aug. 2025
• Tech Stack: Python, Data Sanitization, Evaluation Dataset Creation, Prompt Engineering. • Built an evaluation system from scratch for multi-dimensional assessment of PineAI Agent's knowledge base. • Developed a data sanitization module achieving 70%+ accuracy on 1,000+ call sessions. • Implemented a Q&A extraction module to reach 80%+ 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
• Tech Stack: FastAPI, Celery, Redis, React/Vue.js, LLM API [Code] [Demo] (Example, non-company business) • Managed the full product lifecycle, from design to full-stack implementation and cloud deployment. • Designed 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.	
Research Assist., Proj. Admin., ML Model Dev.	UT-Austin, NSF NCAR Austin, TX Aug. 2025 – Present
• Tech Stack: Physics-based hydrology model development; machine learning parameter calibration. • Applied for and funded by the NSF NCAR's 1k GPU hrs, 22k CPU hrs high performance computing allocation. • Developed a testing framework in validating model outputs against observation data and traditional models. • 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
• Tech Stack: MATLAB, Fortran, Earth System General Circulation Model, continuous wavelet transform [Code] • Demonstrated global propagation of atmospheric waves in the high-resolution simulation. • First-authored presentation at the NASA DRIVE Science Center Workshop and AGU Meeting [Abstract] .	

CORE SKILLS

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

ACADEMIC 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.* [\[Paper\]](#) [\[News\]](#)