Shutong Hou

B.Eng. candidate in Software Engineering · Embedded Systems track

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EDUCATION

Shanxi Agricultural University — B.Eng., College of Software 2025 – present

RESEARCH INTERESTS

Machine learning and neural networks, with a focus on general-purpose large language models (model architecture, instruction tuning, reasoning). Computer vision and 3D perception. Interdisciplinary areas including neuroscience-inspired AI and agricultural applications.

PUBLICATIONS

Hybrid Feature-Aligned Knowledge Distillation for Lightweight Image Classification.
Sole author. 6th International Conference on Artificial Intelligence, Big Data and Algorithms (CAIBDA), Tianjin, China, 2026 (EI). DOI: 10.1109/CAIBDA70336.2026.11621665

Low-Bandwidth and Efficient Plant Disease Diagnosis Based on Perceptual Evidence.
[†]Co-first author. *Frontiers in Plant Science* (JCR Q1, IF 5.9) — under minor revision.

RWKV for Crop Leaf Lesion Segmentation and Mixed Precision Training Stability.
First author. *Plants* (JCR Q1, IF 4.7) — under major revision.

Who Wrote This Pixel? Separating Where from Who in Localized AIGC Detection.
First author. *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)* — under review.

[†] Indicates co-first authorship.

HONORS & AWARDS

ARC Prize 2026 · ARC-AGI-3 (Kaggle) — Silver Medal. Ranked 240th of 5,073 teams (top 4.7%), public score 33.05. 2026.

PROJECTS

Canbal (仓衡) — Agricultural Large Language Model. Project lead.
Vertical-domain LLM for smart agriculture, built on Qwen3-8B with large-scale agricultural instruction tuning. Core capabilities: RAG-enhanced multi-source retrieval, multi-agent collaborative reasoning, domain knowledge graph, meteorological data fusion and metacognitive self-reflection. Authored the system architecture and technical report.

ACADEMIC SERVICE

Reviewer for *Neural Computing and Applications* (Springer).