

Shengbo Ma



Current Institution: Northwest A&F University

Major: Smart Animal Husbandry Science and Engineering

Email: shengboma1030@163.com

GitHub: <https://github.com/Sophix-ma>

Academic Performance

✧ **GPA:** 3.56 | **Weighted Average Score:** 86.73 | **Major Ranking:** 5/56

English Proficiency

✧ **CET-6:** 584 | **IELTS:** 6.5

Research Achievements

- ✧ **Shengbo Ma**, Jiaxuan Li, Yuhan Wang, Chang Chen, Haozhan Liu, Yixiao Liu, Yuxuan Song*, Hao Yuan*. *Research on fast and accurate prediction of milk yield in dairy goats based on deep learning*. Journal of Dairy Science. <https://doi.org/10.3168/jds.2025-27905>.
- ✧ Hao Yuan (Supervisor), **Shengbo Ma**, Xinyue Peng, Haozhan Liu, Lei Zhang, Yuxuan Song. *A Portable Diagnostic Device and Method for Subclinical Mastitis in Dairy Goats Based on Visible-Near Infrared Absorption Spectroscopy*. National Invention Patent, CN119405275A
- ✧ Hao Yuan (Supervisor), **Shengbo Ma**, Xiyun Zhang, Yunan Liu, Haozhan Liu, Ruihua Han, Pusheng Wang, Yuxuan Song. *A Method for Individual Dairy Goat Recognition Based on Multi-View Visual Fusion*. National Invention Patent, 202610587635.9
- ✧ *A Dairy Goat Udder Detection Software Based on Deep Learning*. Software Copyright, **Shengbo Ma**, 2024SR1929880.
- ✧ *A Dairy Goat Body Segmentation Software Based on Deep Learning*. Software Copyright, **Shengbo Ma**, 2025SR0402164
- ✧ *Professional Large Model Platform for Dairy Goat Farming Management*. Software Copyright, **Shengbo Ma**, 2025SR0739995.
- ✧ *Milk Yield Prediction Software for Dairy Goats Based on Deep Learning Image Processing*. Software

Copyright, **Shengbo Ma**, 2025SR1456230.

✧ *Intelligent Sheep Growth Management System*. Software Copyright, **Shengbo Ma**, 2025SR1976266.

Technical Skills

- ✧ **Programming Languages & Frameworks:** Proficient in Python (including deep learning framework PyTorch, software development framework PySide6, data analysis framework NumPy, large model development framework LLaMA Factory); familiar with web development languages HTML, CSS, JavaScript.
- ✧ **Database Technologies:** Proficient in MySQL fundamentals.
- ✧ **Research Tools:** Skilled in Microsoft Office (Word, Excel, PowerPoint); scientific drawing tools Adobe Illustrator and Origin.
- ✧ **Design & Modeling Software:** Familiar with industrial design software SolidWorks and 3D modeling software Blender.

Self-Evaluation

I am a highly self-motivated and efficient learner with a strong curiosity for emerging technologies. I excel at independent problem-solving, quickly iterating from trial-and-error, and maintaining resilience in challenging research environments.

I have spearheaded two end-to-end projects. For a subclinical mastitis diagnostic device, I managed experimental design, SolidWorks mechanical modeling, and patent filing, yielding a national invention patent (second inventor). For a deep learning-based milk yield prediction model, I independently executed the entire research pipeline—including experimental design, data annotation, model training, and manuscript writing—resulting in an independent first-author paper in a CAS Q1 TOP journal.

Currently, I am leading two ongoing projects: a mobile smart farm management system integrating AI with 3D visualization, and an individual goat recognition system. These are expected to yield one patent, two software copyrights, and one peer-reviewed paper before graduation.

My focus is on integrating AI with the animal husbandry industry. I am dedicated to developing breakthrough technologies and delivering practical, high-economic-value products that drive the sustainable modernization of livestock farming.