東北大学 TOHOKU UNIVERSITY

Ningquan Gu

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https://guningquan.github.io/



Education

Tohoku University	Robotics (Early Completion, 1 year ahead)	Ph.D.	10/2024 – 09/2026
Wuhan Textile University	Software Engineering	M.Eng.	09/2021 – 07/2024
Wuhan University of Technology	Industrial Design	B.Eng.	09/2007 – 07/2011

Research Interests

Embodied AI, robotic manipulation, multimodal learning, deformable object manipulation, LLMs in robotics, and industrial applications of robotics.

Working Experience

Tohoku University	Assistant Professor, Neuro-Robotics Lab	10/2026 – Present
KIA GEELY SANY	Technology and Quality-related	07/2011 – 09/2021

Research Projects

Moonshot R&D Program (Gov. of Japan) Core Researcher, Neuro-Humanoid Project 2026 – Present

Publications

1. **N. Gu**, Y. Li, K. Kosuge and M. Hayashibe, "Language-Driven Multi-Task Manipulation With Action-Mask-Enhanced Multimodal Learning," in **IEEE Robotics and Automation Letters**, vol. 11, no. 5, pp. 5550-5557, May 2026. (JCR Q1)
2. **N. Gu**, K. Kosuge and M. Hayashibe, "TactileAloha: Learning Bimanual Manipulation With Tactile Sensing," in **IEEE Robotics and Automation Letters**, vol. 10, no. 8, pp. 8348-8355, Aug. 2025. (JCR Q1)
3. **N. Gu**, R. He and L. Yu, "Learning to Unfold Garment Effectively Into Oriented Direction," in **IEEE Robotics and Automation Letters**, vol. 9, no. 2, pp. 1051-1058, Feb. 2024. (JCR Q1)
4. **N. Gu**, K. Kosuge and M. Hayashibe, "MimicSound: Learning Bimanual Manipulation From Audio-Visual Human Videos," **IEEE Access**, vol. 14, pp. 134206-134217, 2026. (JCR Q2)
5. **N. Gu**, Z. Zhang, R. He, and L. Yu, "ShakingBot: dynamic manipulation for bagging," **Robotica**, vol. 42, no. 3, pp. 775–791, 2024. (Cover Article, JCR Q3).

Patents

1. **N. Gu**, R. He, "A dual-arm humanoid intelligent folding robot," Chinese Invention Patent, Patent No. ZL 2023 1 0557628.0, authorized on Jan. 5, 2024.
2. **N. Gu**, R. He, "Ultraviolet-based high-precision keypoint detection method and application for textiles," Chinese Invention Patent, Patent No. ZL 2023 1 0617337.6, authorized on Jul. 22, 2025.

Honors & Awards

1. Tohoku University Professor Fujino Incentive Award (東北大学藤野先生記念奨励賞), 09/2026.
   In memory of Prof. Genkuro Fujino (藤野先生), mentor of Lu Xun (鲁迅).
2. Cover Article, **Robotica**, 2024 ("ShakingBot: dynamic manipulation for bagging").
3. Two First Prizes (Humanoid Robot Sprint; Penalty Kick), China Robotics and AI Competition (CAAI), 08/2022.

Academic Service

- **Reviewer**: IEEE Robotics and Automation Letters (RA-L); IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2026, 2027); IEEE/SICE International Symposium on System Integration (SII 2027).