Mengfei Du

mfdu22@m.fudan.edu.cn | Homepage | Google Scholar | Github

Mengfei Du is currently a member of the RoboBrain Team. His research interests include Large Vision-Language Models and Embodied AI.

In February 2026, he will join the HKUST as a Ph.D. candidate in the Individualized Interdisciplinary Program (IIP), co-advised by Prof. Shanghang Zhang and Prof. Yike Guo.

EDUCATION

Fudan University, *MPhil in Statistics* | Shanghai, China — June 2025
Fudan University, *BSc in Data Science* | Shanghai, China — June 2022

EXPERIENCE

BAAI RoboBrain Team, *Team Member* | Beijing, China — Jul 2025 - Now

- Participated in the development of the embodied VLM **RoboBrain2.0** and the foundation VLA model **RoboBrain-X0**. Contributed to building an end-to-end pipeline for real-robot data collection, annotation, training data processing, and model pretraining, and helped establish an atomic-skill-based evaluation framework on real robotic platforms including Franka, A2D, R1lite, and Agilex.
- Adviser: Prof. Shanghang Zhang

ByteDance Seed Team, *Research Intern* | Beijing, China — Jan 2025 - Jun 2025

- Explored SeedVL-based VLA model training for embodied AI, developed embodied data processing pipelines, and built experiments on major simulation platforms, achieving state-of-the-art performance on multiple embodied benchmarks such as LIBERO, SimplerEnv and Robocasa.
- Adviser: Dr. Wenqian Wang

Alibaba TongYi Lab, *Research Intern* | Hangzhou, China — Apr 2024 - Dec 2024

- Contributed to the development of **Qwen2-VL** based general multimodal agent. Engaged in pre-training, instruction-tuning, and performance evaluation to enhance the agent's capabilities across various tasks, including household activities, vision-and-language navigation, GUI navigation and card games. Achieved state-of-the-art performance in tasks such as card games and GUI navigation.
- Adviser: Dr. Zhihao Fan

Data Intelligence and Social Computing (DISC) Lab, *Team Member* | Shanghai, China — Jan 2022 - Jun 2025

- Built **EmbSpatial-Bench**, a benchmark for assessing spatial understanding in LVLMs, adopted by Baichuan-Omni-1.5, Robix, Gemini Robotics 1.5, and Qwen3-VL.
- Participated in the design and construction of **ReForm-Eval**, an LVLM evaluation benchmark covering eight capability dimensions and featuring an evaluation sample size over ten times larger than current benchmarks.
- Proposed a plug-and-play module, **DELAN**, based on cross-modal contrastive learning for vision-and-language navigation, achieving a 2–4% performance improvement across four widely used benchmarks.
- Adviser: Prof. Zhongyu Wei

PAPERS

[1] BAAI RoboBrain Team, "RoboBrain 2.0 Technical Report", arXiv:2507.02029, 2025.

[2] Dong Guo, Faming Wu, ..., **Mengfei Du**, ..., Wenli Yang, Wenzhi Wang, "Seed1.5-VL Technical Report", arXiv:2505.07062, 2025.

[3] Peng Wang†, Shuai Bai†, Sinan Tan†, Shijie Wang†, Zhihao Fan†, Jinze Bai*†, Keqin Chen, Xuejing Liu, Jialin Wang, Wenbin Ge, Yang Fan, Kai Dang, **Mengfei Du**, Xuancheng Ren, Rui Men, Dayiheng Liu, Chang Zhou, Jingren Zhou, Junyang Lin*, "Qwen2-VL: Enhancing Vision-Language Model's Perception of the World at Any Resolution", arXiv:2409.12191, 2024.

[4] **Mengfei Du**†, Binhao Wu†, Zejun Li, Xuanjing Huang, Zhongyu Wei*, "EmbSpatial-Bench: Benchmarking Spatial Understanding for Embodied Tasks with Large Vision-Language Models", ACL Main, 2024.

[5] Zejun Li†, Ye Wang†, **Mengfei Du**†, Qingwen Liu†, Binhao Wu†, Jiwen Zhang†, Chengxing Zhou, Zhihao Fan, Jie Fu, Jingjing Chen, Xuanjing Huang, Zhongyu Wei*,"ReForm-Eval: Evaluating Large Vision Language Models via Unified Re-Formulation of Task-Oriented Benchmarks", ACM MM, 2024.

[6] **Mengfei Du**†, Binhao Wu†, Jiwen Zhang, Zhihao Fan, Xuanjing Huang, Zhongyu Wei*, "DELAN: Dual-Level Alignment for Vision-and-Language Navigation by Cross-Modal Contrastive Learning", COLING, 2024.

SELECTED HONORS

Excellent Graduate Award, Shanghai — 2025
China National Scholarship — 2024
Excellent Graduate Award, Fudan University — 2022
Wangdao Scholar (Fudan University Undergraduate Academic Research Funding Program) — 2022