The 21st National College Robot Competition ROBOCON 2022 "Create brilliant together" National First Prize (Second Place)

## According to the principle of conservation of angular momentum, using a momentum wheel to maintain the balance of a quadrupedal robot according to its axial deflection angle.

Code for planning end-of-foot trajectories of guadruped robots

- CONTRIBUTION:

- · Predict enemy robot head ball trajectories using Holt-Winters method and Kalman filtering
- · Code trajectory planning for two robots using B-splines and minimum-snap

The 21st National College Robot Competition ROBOCON 2022 "Machine equestrian

## **China College Student Computer Game Competition** CONTRIBUTION:

strategy.

competition" CONTRIBUTION:

• Design position reward values for several position types inherent in the game, and code a machine gaming program using the min-max gaming

· Served as an operator in the competition

- Awards
- Trained Divter's image generator (DALL-E) as a baseline model Carried out evaluation experiments
- CONTRIBUTION:
- **Generation (Received by LREC-COLING 2024)**

• Wrote part of the paper **TIGER: A Unified Generative Model Framework for Multimodal Dialogue Response** 

- May. 2024 • Designed a new multi-modal large model framework: PEGS(PErceive and Generate Stickers), which utilizes multi-modal RAG(Retrieval-
- CONTRIBUTION:

• Trained PEGS-Ret and PEGS-RAG, they obtain images by retrieval and RAG, respectively.

- ACL 2024)
- Augmented Generation) in multi-modal response generation for the first time.
- STICKERCONV: Generating Multimodal Empathetic Responses from Scratch (Received by

Publications

· Awarded second and third prizes for academic scholarships.

- Awarded future scholarships.

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# Summary\_

Undergraduate Researcher in the Data Mining group at Northeastern University, supervised by Associate Prof. Shi Feng. Primary research interests encompass Generative Artificial Intelligence, Large Language Model, Multi-modal Large Language Model, Diffusion, and Empathic dialogue, among others. Current academic work focuses on the areas of multi-modal dialog and multi-modal Large Language Model. Co-first author of one paper at a CCF-recommended A conference and second author of one paper at a CCF-recommended B conference. Won two national first prizes and one national third prize in high-level university competitions.

# Education

## Northeastern University

**B.S. IN ARTIFICIAL INTELLIGENCE** 

- Honored as an Outstanding Individual for Academic Excellence.

· Members of the future experimental class.

Second Author

Feb. 2024

National First Prize Aua, 2023

Jul. 2022

Jul. 2022

## National Third Prize

Shenyang, China

Sep. 2021 - ToDay

Co-first Author