Jing Wang

Chongqing University
Computer Science and Technology (Excellence) of 2020

TEL: 19936076184
wangjing123527@gmail.com

Research Interests: Computer Vision, Embodied AI, Brain-Inspired Intelligence (Event Camera, SNN), SLAM

EDUCATION

GPA/WAVG	Ranking	CET4	CET6
3.87/91.77	2/218	643	562

HONORS AND AWARDS

Awards		Honors	
2022.05	Mathematical Contest In Modeling/Interdisciplinary Contest In Modeling (MCM/ICM) **Finalist**	2020.09	National Scholarship
2022.12	Contemporary Undergraduate Mathematical Contest in Modeling (CUMCM) **National Second Prize**	2021.10	National Scholarship
2020.12	**Invention patent fourth author:** A method and system for automatic learning enhancement of asynchronous event data	2020.09	National Encouragement Scholarship
2021.12	Huawei Cloud Artificial Intelligence Competition **Excellence Award**	2023.04	Chongqing Merit Student

PROJECTS

- **SLAM Autonomous Navigation and Positioning for Intelligent Robots** *2021.06 - 2022.06*

  Student Innovation Training Project (SITP) (Chongqing)

  – **Overview:** This project aims to implement a self-navigating car based on the **RatSLAM algorithm**. The project adopts a feature fusion approach that combines **global GIST features** and **local SIFT features** for scene recognition.
  – **Contribution:** The improved RatSLAM model improves the accuracy and recall to **90% and 81%** respectively.
  – **Responsibility:** Captain; Team progress management; Core SLAM system operation and improvement

RESEARCH HIGHLIGHT

- **ST-ESS: A Hybrid SNN-Transformer Architecture for Event-based Semantic Segmentation** *2022.11 - ongoing*
  – **Overview:** This study propose a **semantic segmentation method for event cameras** that leverages an unsupervised domain adaptation **(UDA)** technique to transfer knowledge from a labeled source domain (images) to an unlabeled target domain (events). The framework consists of **two components**: **an LIF-based spiking neural network (EVSNN)** that extracts event features and reconstructs images from events, and a **SegFormer encoder** that extracts frame features and reconstructed image features.
  – **Contribution:** Submitting to **IRAL** conference. Achieved **SOTA** results on DDD17 dataset.
  – **Responsibility:** **Independent research and writing.**

TECHNICAL SKILLS

- **English level**: Professional Working Proficiency
- **Programming Languages**: C, C++(95), Python, Java(93)
- **Basic**: Probability Theory (95), Principle of optimization (98), Mathematical Model (100)
- **AI**: Machine Learning(93), NLP(97)
- **CV Foundation**: Image Processing, Event-based Camera, Basic model (CNN, RNN, Transformer)

SUPERVISOR'S EVALUATION

- **Fuqiang Gu** *Google Scholar*

  Professor in Chongqing University

  – Student Wang Jing has performed outstandingly in the scientific research project, **taking on the role of team leader in the SLAM project, completing the system design and development, and expecting to publish high-quality papers on Transformer and event cameras.** Wang Jing has strong communication skills, agile thinking, and remarkable teamwork ability. She is an excellent researcher who deserves trust.

Last updated: June 21, 2023