Yaxuan Wang

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Education

Sichuan University

Computer Science(Top-notch Program) 3.85 GPA 2019.09-Present

IELTS 7.0

Coursework: Data Structures/Algorithms, Discrete Math, Statistics/Probability,Robotics Programming with ROS, Introduction to Deep Learning, Introduction to Pattern Recognition

Activities: Team Leader of The RoboMaster University AI Challenge, president of 3D Printing Association

Research

Weakly supervised learning combined with temporal anomaly detection **2022.05-Present**

- We introduce a weakly supervised approach to the field of temporal anomaly detection in order to obtain better performance using fewer labels.

Research on Urban Safety Perception **2021.10-2022.06**

- Propose a novel inverse reinforcement learning (IRL) based framework for predicting the level of perceptual safety of urban street scenes and recovering the reward function that can explain the evaluation pattern. We also present a scalable state representation method for modeling the prediction problem as a Markov decision process (MDP) and using reinforcement learning to solve the problem.
- There are currently **two related papers under review**.

Application Research of Artificial Intelligence Technology Based on CBCT to Automatically Determine Alveolar Bone Density **2021.10-2022.06**

- Design a medical image segmentation network to obtain the position of alveolar bone from oral CBCT images. And study the effect of alveolar bone density on orthodontics.

Autonomous Robot Shooting and Movement in Specific Maps **2021.09-2022.05**

- Based on visual perception and Cost map, we used behaviour tree to realize intelligent decision-making of the automatic robot. So the robot can move and shoot on a specific map.
- Our results won the **ICRA RMUA International Third Prize**

Portable Vision Integrated Real-time Detection and Tracking System for Rare Animals **2020.10-2021.09**

- A gimbal-based portable system is designed to carry a real-time target detection and tracking system with high robustness.
- Responsible for the research of target tracking algorithm based on optical flow method.

Skills

- Familiar with using multiple programming languages, such as Python, Java, C++, etc.
- Familiar with the commonly used deep learning framework PyTorch, and systematically learned the basic theoretical knowledge of pattern recognition and deep learning.
- Full-stack development experience and master the flask development framework.
- Familiar with database and the technics of web crawler, with basic data analysis capabilities.
- Possess good literature reading and comprehension skills and English writing skills, familiar with LaTeX

Awards

The RoboMaster 2022 University AI Challenge - International Third Prize 2022

National Scholarship CK Power Scholarship School-level first-class scholarship 2021

The 14th China University Student Computer Design Competition - National First Prize 2021

The RoboMaster University Championship - South Division First Prize 2021

The RoboMaster University League - Provincial First Prize 2021

Outstanding Student of Sichuan University 2020

Outstanding Cadre of Sichuan University Library Volunteer Team 2020

The Eighth Sichuan University Student Engineering Training Comprehensive Ability Competition - First Prize at School Level 2020

Second Prize of College-level English Speech Contest of Electrical Engineering 2019