YIXIANG JIA

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EDUCATION

Beihang University Beijing			09/2018-Present
• Major in Automation Science, Overall GPA: 3.5 / 4.0			
Research Interest: Artificial Intelligence, Computer V	ision, Image	Processing	
• Programming & Software: Proficient in Python and C	++ (two yea	ars' experience), and familiar with Mar	tlab and Java
Main Course and Score	` •	• //	
Mathematical Analysis (I) /(II)	92/86	Data Structure (C)	86
Computer Networks and Communication (Python)	91	Probability Statistics A	85
Pattern Recognition and Machine Learning (Python)	88	Digital Signal Prosessing (Matlab)	86
Introduction of Multi-information Fusion (Matlab)	93		
Awards and Honors			
2 nd Prize in Chinese Physics Olympiad			09/2017
3 nd Prize in Chinese Mathematical Olympiad			09/2017

RESEARCH

Center for Pattern Recognition of Beihang University, Advisor: Prof. Wang Tian

MCI Image Diagnosis

- Deployed MaskRCNN module onto the diagnosis of MCI images and got a relative great result
- Familiarized myself with medical image processing and data augmentation by reading relative papers
- Mastered the construction and tuning of complex net frames through applying and modifying MaskRCNN

Small Target Detection and Tracking of Infrared Images (Still in progress)

10/2021-Present

06/2021-08/2021

- Implemented detection algorithms of small target detection and tracking, like Canny, Suzuki and Kalman Filter
- Constructed rockets and satellites database on my own
- Comparing different module to solve this problem such as Yolo, Faster RCNN and Deformable DETR
- Trying to simplify the net to raise the speed and stability

Sensitive Content Detection

06/2019-08/2019

- Realized OCR with Python base on the algorithm of YOLO
- Detected Sensitive pictures especially in different frames based on the theory of YOWO
- Mastered knowledge of net construction, data augment and detection fusion

SELECTED PROJECTS

Medical Image Diagnosis Based on CENET

Pattern Recognition and Intelligent System

- Built the CENET and UNET and successfully realized the task of bloodstream segmentation
- Used various ways to imply data augmentation on the relatively small scale data and dissolve the problems of data distribution
- Considered to be one of the best work among the class and get the full score of this experiment

Smart Car Races

Experiment Course of Computer Control and Detection

- Mastered C++ with coding more than 5000 lines to control the car to successfully complete the race
- Familiarized with both hardware and software by coding, tuning and circuit wiring in my car
- Ranked the 3rd among the 8 teams and received a high score due to the innovation in edge detection

Estimated Fusion About Localization of Indoor Robots

Introduction of Multi-information Fusion

- Built a KFM module by Matlab through clever mathematical transformation
- Realized the effective tracking of the motion trajectory with a pretty low total loss
- Considered to be one of the best modules among the class.

EXTRACURRICULAR ACTIVITY

•	Core N	Лember of	Go club	of Beihang	University	
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09/2018-Present 10/2018

Participant invited by WICV

10/2010

• Volunteer of Beihang Mini Marathon

12/2018