Guangxun Zhu 23/03/1999

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Education

Hunan University, Changsha, China (985 Project)   2021 Sep – 2024 Jun (Expected)

MS in Automation, GPA 3.68 / 4.0

Academic focus / background:

Machine Learning, Multiple Object Tracking, Re-Identification, Multi-task Learning

Southwest Jiaotong University, Chengdu, China (211 Project)   2017 Sep – 2021 Jun

BS in Vehicle Engineering, GPA 3.22 / 4.0

Relevant courses:

Linear Algebra, Basics of Computer Programming, Electronic Technology, Probability Theory and Mathematical Statistics, Basis of Control Engineering, etc.

Working Projects and Papers

Institute of Automation, Chinese Academy of Sciences, Beijing, China   2022 Jul – 2023 Sep

Reaearch Assistant

Team work:

- Assisted in accelerating the models and deploying them in Hikvision NVR in the project Intelligent Oilfield Safety Production Supervision Solution funded by Sinopec Shengli Oilfield.

Individual research:

- Developed and optimized an ambiguous assignment strategy in multi-object tracking
- Designed a simple and efficient cross-camera matching method for multi-object tracking
- Developed a Multi-camera multi-object tracking system to collect information about participants in the Keirin cycle race (Joint project with the Hong Kong Polytechnic University)
- Analyzed the conflict between tasks in JDE framework in multi-object tracking
- Explored End-to-end tracking with transformer

Hunan University, Changsha, China   2021 Oct – 2022 Jun

Funded by the National Natural Science Foundation of China

- Captured workpiece images using the NCC template matching algorithm and constructed a dataset
- Proposed further decoupling of YOLOX, which was the most influential improvement
- Conducted some ablation experiments on the modified YOLOX object detection algorithm
- Assisted with the completion of a submitted paper:
  Fengjun Chen, Tao Wang, **Guangxun Zhu**, Tian Hu, and Xiaosheng Liang."A further-decoupled YOLOX for automatic laser cylindrical lens sorting system".Engineering Applications of Artificial Intelligence. 2023. Submitted.

Honors & Awards

Competition awards

- Second Prize(Top 5‰), CHINA-US YOUNG MAKER COMPETITION, 2020 (International level)
- Second Prize(Top 8%), National College Mechanical Innovation Competition, 2020 (National level)
- Third Prize, Chinese College Students' Originality Competition in Cranes, 2019 (National level)

Scholarship

- National Encouragement Scholarship, Southwest Jiaotong University, 2020
- The First Prize Scholarship, Hunan University, 2022
- The Second Prize Scholarship, Hunan University, 2021
- The Third Prize Scholarship, Southwest Jiaotong University, 2018&2019

Honors

- Outstanding Graduates, Southwest Jiaotong University, 2021
- Merit Student, Southwest Jiaotong University, 2020
- Excellent Student Cadre, Southwest Jiaotong University, 2018&2019

Activities Experiences

Southwest Jiaotong University, Chengdu, China   2018 Sep – 2019 Jun

Deputy head of the overseas study service department of Class Unions

- Organized overseas study experience sharing and other activities: cooperated with off-campus enterprises such as New Oriental
- Assisted the Bank of China to provide relevant financial services for students who intend to go abroad

Additional Info

- Familiar with machine learning algorithms and DL frameworks such as pytorch
- Familiar with most multi-object tracking and object detection methods
- Skilled in Python, C#, LaTeX, and other auxiliary software and libraries
- IELTS(Sep 2023): 6.5

References

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