MingDa Huo

University： Jinan University

Major： Computer Science and Technology

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Education

2019.09-2023.07 B.S. degree from School of Information Science and Technology GPA:3.48 Overall ranking: 3/26 CET−4: 552

Major Courses：Academic English（94）, Probability Statistics（90）, ACM Programming（93）, Computer Networks（93）, Operating Systems（91）, Computer Architecture（93）, Formal methods（90）, Discrete Mathematics, Design and Analysis of Algorithms, Software Engineering, Database Systems, Cryptography, Computer Organization, Principles of Compilation etc.

Research

- **CVPR 2022 Workshop: Image Matching: Local Features and Beyond (competition)**

  First Presenter : Match keypoints on photos taken from different angles in the same scene and compute the fundamental matrix
  - Fused the matching results from LoFTR, SuperGlue, DKM and QuadTreeAttention models
  - Seted up ThreadPoolExecutor to deploy multi−threaded deduction of keypoints and computation of F−matrix
  - Completed the four models in nine hours, and ultimately obtaining the top 1% of the results

- **Foursquare − Location Matching: Match point of interest data across datasets (competition)**
  - Populate the BERT model with NaN text using the nearest (longitude and latitude) 5 points
  - Generate POI candidates from the embeddings generated by the NLP model, and spatial nearest neighbours
  - Create and train XGBoost binary classification models for each candidate rank to obtain the IoU score : 0.942

- **Sartorius − Cell Instance Segmentation: Detect single neuronal cells in microscopy images (competition)**
  - Soluted by using ensemble learning of Detectron2 + Mask R−CNN
  - Expanded the anchor selection as well as multi−scale images , used NMS to do Ensemble on the models
  - Obtained the Private LB = 0.340 (Top2%)

- **G−Research : Crypto Forecasting (published on 2022 3rd ICBAIE)**
  - Co−first author : Hybrid Catboost and XGboost for Crypto Forecasting

- **UW−Madison : GI Tract Image Segmentation with UNet 3D (published on 2022 16th ICME)**
  - Second author : Utilized U−Net3D for stomach and intestines' segmentation

Publication

Co−first author	Crypto Profit Forecasting using hybrid Machine Learning method	DOI: 10.1109/ICBAIE56435.2022.9985937
Second author	GI Tract Image Segmentation with U−Net 3D	DOI: 10.1109/CME55444.2022.10063259

Awards

Competation：	2022	Google Research − Image Matching Challenge	Gold Medal
	2022	Foursquare − Location Matching: Match point of interest data across datasets	Silver Medal
	2021	Sartorius − Cell Instance Segmentation	Silver Medal
University ：	2023	Outstanding Contribution Graduates	
	2023	Outstanding Student CPC Member of JNU	
	2019−2023	Study Leadership Awards (twice)	
	2019−2023	Outstanding Student Scholarship (1 second class award and 2 third class awards)	

Activities

Compus:

- **Computer Science and Technology class leader :** organizes class collective activities and handles class affairs 2019.09−2023.07
- **Writer and new media director for the college's public website:** cumulative readership of **5w+** 2019.09−2023.07
- **Volunteering on Special Needs Children and Eco−Environmental Service :** over **50 hours** of accumulated 2019.09−2022.12

Society:

- **Zhong Class of Jinan University** 2022.07−2023.07

Promoted quantitative research in twenty townships of Guangdong to form a report on the digital transformation of rural vitalization.

- **Ping An Insurance（Group）Company of China, Ltd.** 2022.07−2023.08

Data Science Group : Enhanced renewal rates through Human Capital Optimisation Programme

Summar Quant Internship : Developed prediction model of stock return on investment based on deep Neural Network and TabNet Model