Fujian Wu

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i Feb 1996, Lianzhou, Oingyuan, Guangdong Province, China

Research Assistant

Bio. I am currently a software engineer at Pong Yuen Holdings Limited, Research recommendation systems, target detection and other deep learning algorithms, as well as the use of ros to achieve car navigation •

Research interests. My research work involves a series of problems: recommendation systems, object detection, object tracking, ensemble learning, ROS. Currently, I am interested in various deep learning methods (CNN, GAN, Deep Bayesian Learning, etc.)..



Education

Sep 2016 -Jun 2020

Bachelor of Engineering, Nanfang College of Sun Yat-sen University (NFSYSU), GuangZhou

Electrical Engineering and its Automation

Advisor: Prof. ChouJun Zhan

Major: Further Mathematics, Complex analysis, Fundamentals of Electric Circuit

GPA: 3.64/5.0 | **Rank**: 5/272

Publications

> Zhan, C., Wu, F., Huang, Z. et al. Analysis of collective action propagation with multiple recurrences. Neural Comput & Applic 32, 13491-13504 (2020). https://doi.org/10.1007/s00521-020-04756-3.

- > Z. Wu, F. Wu, J. Chai, C. Zhan and Z. Yu, " Prediction of Daily Precipitation Based on Deep Learning and Broad Learning Techniques," 2019 IEEE 14th International Conference on Intelligent Systems and Knowledge Engineering (ISKE), 2019, pp. 513-519, doi: 10.1109/ISKE47853.2019.9170361.
- > Wu, Shuangyan & Zheng, YuFan Lai, Zhikang & Wu, Fujian & Zhan, Choujun. (2019). Movie box office prediction based on ensemble learning. 1-4. 10.1109/ISPCE-CN48734.2019.8958631.
- > Z. Wu, F. Wu, J. Chai, C. Zhan and Z. Yu, "Prediction of Daily Precipitation Based on Deep Learning and Broad Learning Techniques," 2019 IEEE 14th International Conference on Intelligent Systems and Knowledge Engineering (ISKE), 2019, pp. 513-519, doi: 10.1109/ISKE47853.2019.9170361.

Skills

Programming Skills: Python, C, ETFX, Matlab.

Machine Learning: master in Ensemble Leaning, Deep Leaning.

familiar with most predicted machine learning.

Computer Vision: have a certain understanding of image processing (segmentation, classification, etc.)

</> Projects & Experiences

May 2022

ROS navigation, PongYuen, Python

- Oct 2021
- > Use Isaac sim to build a repository environment with physical properties;
- > Use actiongraph in isaac sim to publish radar data information to ROS;
- > ROS reads the radar information and uses the relevant navigation algorithms to control the movement of the car

ROS navigation

May 2022

Recommendation system, PongYuen, Python

Oct 2021

- > Recommend favorite movies based on movies the user has seen;
- > By analyzing the preferences of multiple users, it can recommend other movies that people who have seen that movie like to watch to users based on the information that users have seen a certain movie. Recommendation system | Machine Learning

Oct 2021

Speech recognition, PongYuen, Python

Oct 2021

> Identify what the user is saying by the frequency and ripple of the voice.

Speech recognition RIVA

Sept 2021

Solar radiation prediction, PongYuen, Python

> Spodoptera frugiperda identification:

- May 2021
- > Analyze periodicity of solar radiation using Python and predict solar radiation using ensemble lear-
- > Calculate the relationship between solar radiation and power generation through the azimuth angle of the sun, the zenith angle, the position of the solar panel, and the physical properties;

Deep learning ensemble learning

Jul 2020

Spodoptera frugiperda identification, PongYuen, Python

- May 2020
- > The collected images are processed through geometric transformations such as translation, transposition, mirroring, rotation, scaling, etc., to correct the systematic errors of the image acquisition system and the random errors of the instrument position (imaging angle, perspective relationship, and even the lens itself).
- > Classification predictions (cocoons, larvae, adults) of Spodoptera frugiperda using deep learning Deep learning | Image graying | Image graying

May 2020 Oct 2017

Time series forecasting, Nanfang College of Sun Yat-sen University, Matlab/Python

- > Rain ForecastBased on rain classification forecast implemented by Matlab.;
- > Rain ForecastBased on rain classification forecast implemented by python.
- > Box Office Prediction with Ensemble Learning and Deep Learning.
- > We consider actions that propagate in a social network with multiple communities and find the growth in the propagation breadth of collective action can be explained by a simple mathematical model with an analytical solution.

Ensemble learning | Deep learning | Broad learning | complex networks

🔾 Honors & Awards

Outstanding graduates student of Nanfang College of Sun Yat-sen University. Spring 2020

Fall 2019 First-class scholarship for outstanding students in Nanfang College of Sun Yat-sen University (<2%).

Fall 2018 First-class scholarship for outstanding students in Nanfang College of Sun Yat-sen University (<2%).

Fall 2017 Second-class scholarship for outstanding students in Nanfang College of Sun Yat-sen University (<7%).

2017-2020 Provincial Undergraduate Training Program for Innovation and Entrepreneurship (two times)

2017-2020 University-level Undergraduate Training Program for Innovation and Entrepreneurship

Interests

Sports: Table tennis, badminton.

Mobile games, PC games, Board games Games Funny, Suspenseful, Historical, Scary. Movies:

(last update: 13 Feb. 2022)