Mingxu Li

E-Mail：Li.Mingxu@my.swjtu.edu.cn   Research interests：Computer vision

Education

| 2015.9 – 2019.6 | Jiangsu University of Science and Technology / Internet of things | Undergraduate |
| 2019.9 to now | Southwest Jiaotong University / Software engineering | postgraduate |

Practice and Research

Publications (2019.06-2020.04)   Chinese Journal of image and graphics   First Author
Title: Significance detection algorithm of irregular pixel clusters

The image is segmented based on irregular pixel clusters, and the primary saliency image is obtained by fusing the center prior and contrast prior. Finally, the final saliency image is obtained by smoothing the saliency image.

- Innovation: Through the better use of texture features and color features, the speed of the algorithm is improved; better coarse positioning of the target object is obtained by using new central priori, which improve the accuracy of the algorithm.

Project (2019.12 to now)   Department of science and technology of Sichuan Province   Key developers
Name: Intelligent urban transportation facilities

- On the one hand, in the roadside camera, yolov4-tine is used to realize the target detection on TX2, and the target trajectory tracking is realized through the detected information combined with Kalman filter. On the other hand, from the perspective of vehicle data recorder, the lane line is constructed by using the linear relationship between two frames and combining the bounding box obtained from target detection.

Project (2017.10-2017.12)   China Railway Tunnel Bureau   Key developers
Name: Intelligent construction site integrated platform for tunnel construction

- Including vehicle positioning, authority management, file management module design and main development. Difficulty: concurrency operation, because of the low concurrency of files, adopting optimistic lock processing.

Project (2017.4-2017.12)   Key developers
Name: Portable air quality detector

- Mybatis as ORM, Android as client, and BLE portable low-power Bluetooth communicate with Android. The air quality is predicted by Least Squares Method, which combined with the factors that affect the air.

Project (2016.5-2017.2)   Self-service travel planning system   Key developers
Name: Undergraduate entrepreneurship and innovation program

- The system get the scores of hotels, restaurants, scenic spots and users on Ctrip and other platforms through the web spider, which is saved by MySQL. FP growth algorithm is used to calculate the frequent set, analyze where users go to most frequently after they go to a certain location, and recommend it to users as an alternative.

Practice & Award

| **Award** | • National scholarship for postgraduates，scholarship for postgraduates，Third-class national award of Intelligent Internet Competition，Second-class national award of Mobile Internet Competition. |

Language & Skills

| English | • CET4—540，CET6—passed，Ability to read English documents skillfully. |
| Skills | • Java、MySQL、python、TF2、HTML5、Android，Linux |