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| **YU, Hanyi**  Mobile: 1-404-330-7688 E-MAIL:  [yhydtc1@gmail.com](mailto:%20yhydtc1@gmail.com) | | | |
| **Education** | | | |
| **EMORY UNIVERSITY** | 08/2017-Present | | |
| Ph.D. student in Computer Science and Informatics |  | | |
| **SHANGHAI JIAO TONG UNIVERSITY** | 09/2014-03/2017 | | |
| Master Degree in Control Science and Engineering | | | |
| **Overall GPA**: 85.16/100 (Ranking 12/120) **Major GPA**: 87.71/100 | | | |
| **SHANGHAI JIAO TONG UNIVERSITY** | 09/2010-07/2014 | | |
| Bachelor Degree in Electrical Engineering and Automation | | | |
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| **SELECTED RESEARCH Project** | | | |
| **GRADUATE RESEARCH PROJECT** | 09/2015-06/2016 | | |
| Project Name: **Fusion of Multi-View Multi-Exposure Images with Delaunay Triangulation**  *Introduction: Fusing images captured by different devices and under different exposure conditions into a well-exposed image* | | | |
| * Image Registration: Found and matched feature points on the multi-exposed images, which were segmented into a set of triangular regions by Delaunay triangulation algorithm according to this matched points, and then applied affine transformation to each matched triangle pairs respectively to achieve the registration of multi-view images * Image Fusion: Partitioned the image domain into uniformed regions after images aligned, and selected the images that provided the most information with certain blocks which were fused together under monotonically blending functions * Achievement: Published the paper “ Fusion of Multi-View Multi-Exposure Images with Delaunay Triangulation” at ICONIP 2016 | | | |
| **GRADUATE RESEARCH PROJECT** | 03/2015-06/2015 | | |
| Project Name: **Detection of Beverage Bottles and Cans Based on Composite Feature Vector**  *Introduction: Beverage bottles and cans detection by analysis of the capture images in supermarket Creating on the shelf, which were divided into rectangular regions according to morphological characteristics.* | | | |
| * Image Segmentation: Prepossessed the images by graying and edge extraction, calculated the vertical histogram by accumulating pixels each row, and divided the image into sub-images according to the peaks in the histogram identifying the position of shelves, then similarly repeated the procedure horizontally to segregate each bottle and can * Target Recognition: Sorted and selected candidate images of bottles and cans with HOG+SVM algorithm which were set as positive samples with bottles and cans and negative samples without them, and trained the DAG-SVM classifier based on the use of compound feature vectors constituted by LBP feature and spatial HSV color histogram * Achievement: Achieved a correction rate for bottles and cans detection higher than 90% | | | |
| **GRADUATION DESIGN FOR UNDERGRADUATE STUDY** | 12/2013-06/2014 | | |
| Project Name: **The Interactive Control of Intelligent Miniature Vehicle Based on Computer Vision**  *Introduction: The miniature vehicle information collection by two cameras installed on itself to realize self-driving with image processing programs, and achieving the functions of recognition, and overtaking based on the lane recognition and target tracking* | | | |
| * Lane Recognition: Captured images by fastened camera, and detected lane by the threshing and Hough transformation to judge the vehicles deviation according to the slope of the lane in the image * 2. Target Tracking: Captured images by Pan-Tilt camera, extracted features by Haar operator, and optimized the classifier by semi-supervised AdaBoost algorithm to achieve real-time tracking of target vehicle * Vehicle Control: Controlled the locomotion of Pan-Tilt camera to keep the target in the middle of image, and monitored the motors to realize actions like acceleration and steering | | | |
| **UNDERGRADUATE RESEARCH PROJECT** | 09/2012-09/2013 | | |
| Project Name: **Intelligent Miniature Vehicle Control System Based on video**  *Introduction:* *Vehicle lights and road signs recognition through miniature car real vehicle simulation to guide vehicles to make corresponding, turning such action according to tail light of the front vehicles* | | | |
| * Signpost Recognition: Obtained the signs of the signposts using color threshing segmentation, area detection and shape detection, then extracted the features of the signs and matched with standard templates by classifying the signs to the classes in the shortest Euclidean distance * Taillight Recognition: Obtained pixels with the lights’ color using threshing segmentation in HSV color space, and found the halos by Hough transformation to take their centers as an estimate of taillights position | | | |
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| **INTERNSHIP & EXTRACURRICULAR ACTIVITIES** | | | |
| **GE Global Research, Shanghai, China**, *Intern Engineer* | | Summer 2013 | |
| * Graphical User Interface Design of the Monitoring System of Coal-fired Power Plant * Technical document translation | | | |
| **The third China Nuclear Power Plant Control Technology Conference**, *Interpreter* | | 04/2015 | |
| **Volunteer Teaching Activities of SpringRain Association,** *Group Leader* | | 07/2017-08/2014 | |
| * Led a 12-member group to help children in undeveloped area with their study for the whole summer | | | |
| **Seal Calligraphy Association** | | | 09/2010-07/2012 |
| **School of Electronic Information and Electrical Engineering Association for Science and Technology, SJTU** | | | 09/2010-07/2012 |
| **University’s Library Volunteer** | | | 09/2010-07/2012 |
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| **SKILLS & HOBBIES** | | | |
| * Soft Brush Calligraphy Level 9, Basketball, Table Tennis * Grasping C++ language, Python language, assembly language * Grasping the usage of Visual Studio and Matlab | | | |