


# JIA XU MA

MASTER, COMPUTER SCIENCE

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EDUCATION	<b>Shanghai Jiao Tong University</b> <i>Master of Engineering, Computer Science</i> Interests: <b>Computer Vision and Artificial Intelligence</b>	Sept. 2016 - 2019 (expected) <b>GPA: 3.88/4.0</b> Advisors: Prof. <a href="#">Cewu Lu</a>
	<b>Nanjing University</b> <i>Bachelor of Science, Physics</i>	Sept. 2012 - Jun. 2016 <b>GPA: 4.5/5.0</b>
WORKING EXPERIENCES	<b>Flexiv Robotics, Ltd.</b> - Constructed a label system with auto assistance - Designed mainly for labeling image segmentation ground truths	Intern, May. 2018 - Now
PUBLICATION	<b>Fast Surface Defect Detection Using Gabor Filters</b> <b>Jiaxu Ma</b> , Yuxi Wang, Chen Shi, Cewu Lu <i>International Conference on Image Processing (ICIP) 2018.</i> <b>Annotation-Free and One-Shot Learning for Instance Segmentation of Homogeneous Object Clusters</b> Zheng Wu, Ruiheng Chang, <b>Jiaxu Ma</b> , Cewu Lu, Chi-Keung Tang <i>International Joint Conferences on Artificial Intelligence (IJCAI) 2018.</i>	
EXPERIENCES	<b>Defect detection on surfaces of industrial products</b> - Improved Gabor filters and some morphological image processing skills - Designed a defect detection system composed of Gabor filtering, hysteresis thresholding, region grouping and noise removal - Achieved nearly real-time performance for realistic scratch detection and crack detection <b>Instance Segmentation of Homogeneous Object Clusters</b> - Synthesized clustering images based on the optimization objectives - Trained a deep learning segmentation model for synthesized images <b>Accurate parts localization</b> - Implemented the well-known Structured Edge Detection Toolbox in c++ code  - Constructed a parts localization system based on object detection(EdgeBoxes), object classification(AlexNet), image matching(SiftFlow) and object tracking(KCF) methods	Aug. 2017 - Feb. 2018 Jan. 2017 - Dec. 2017 Nov. 2016 - Apr. 2017
HONORS AND AWARDS	Graduate Student Scholarship, Grand Prize ( <b>Top 30%</b> ) Honorable Winner of The Mathematical Contest in Modeling ( <b>Top 25%</b> ) Industrial Bank Scholarship ( <b>Top 5%</b> ) Elite Scholarship ( <b>Top 15%</b> )	2016, 2017 2014 2013 2013, 2015
PROGRAMMING AND PROFICIENCIES	C / C++, Python, MATLAB, $\text{\LaTeX}$ OpenCV, TensorFlow, PyTorch, Torch	