

# Junru Wu

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CONTACT INFORMATION	Room A-306, SIST Building 1, 393 Middle Huaxia Road Pudong District, Shanghai, 201210, China	+(86)18512100019 wujr1@shanghaitech.edu.cn
RESEARCH INTERESTS	Saliency Detection, Computer Vision, Deep Learning	
EDUCATION	<b>Texas A&amp;M University, College Station, TX</b> Dept. of Computer Science and Engineering <i>Master in Computer Engineering</i>	<i>Aug. 2017 -</i>
	<b>Tongji University, Shanghai, China</b> <i>B.Eng. in Electronics and Information Engineering</i> <ul style="list-style-type: none"><li>• Thesis: Pedestrian Detection with Machine Learning <i>Advisor: Prof. Shangzhi Xu</i></li><li>• GPA: 84/100</li><li>• Core Course: Fundamentals of Computers, C/C++ Programming, Digital Signal Processing, Software Technology, Computer Networks, Digital Electronic Technology, Embedded Systems</li></ul>	<i>Sept. 2012 - July 2016</i>
PUBLICATIONS	<b>Junru Wu</b> , Yanyu Xu, Nianyi Li, Jingyi Yu, and Shenghua Gao. "Personalized Saliency Prediction with Person-specific Information" <i>International Conference on Computer Vision (ICCV)</i> , 2017 (under review).  Yanyu Xu, Nianyi Li, <b>Junru Wu</b> , Jingyi Yu, and Shenghua Gao. "Beyond Universal Saliency: Personalized Saliency Prediction with Multi-task CNN" <i>IEEE International Joint Conference on Artificial Intelligence (IJCAI)</i> , 2017. [pdf].	
RESEARCH EXPERIENCE	<b>ShanghaiTech Univeristy, Shanghai, China</b> <b>Visual Computing Lab</b> <i>Research Assistant</i>	<i>Aug. 2016 - Present</i>
	<ul style="list-style-type: none"><li>• <b>Spatiotemporal Saliency in VR</b> -Build a eye-tracking system in HTC VIVE with aGlass and Unity, and collect a new dataset upon it -Address the problem of spatiotemporal saliency detection in VR and proposed a R-CNN based model <i>Advisor: Prof. Shenghua Gao</i></li><li>• <b>Personalized Saliency Prediction with Multi-task CNN</b> -Investigate the heterogeneous gaze patterns of individuals when viewing an identical scene based on eye-tracker collected data -Adopted a Multi-task Convolutional Neural Network to model personalized saliency maps across users. [IJCAI 2017] <i>Advisor: Prof. Shenghua Gao</i></li></ul>	<i>May. 2017 - Present</i> <i>Aug. 2016 - Present</i>
	<b>Tongji University, Shanghai, China</b> <i>Undergraduate Research Assistant</i> <ul style="list-style-type: none"><li>• <b>Pedestrian Detection with Machine Learning</b> -Built an pedestrian detector with Pyramid HOG features and Intersection Kernel Support Vector Machine. -Performed comprehensive experiments on INRIA Pedestrian Dataset and compare model performance against state-of-the-art baselines. <i>Advisor: Prof. Shangzhi Xu</i></li></ul>	<i>Jan. 2016 - July 2016</i>
PROJECT EXPERIENCE	<i>Student Innovation Training Program, Tongji Univeristy</i> <ul style="list-style-type: none"><li>• <b>Crowd tracking in Aerial Video</b> -Implemented a automate surveillance system to detect and track pedestrians in aerial video captured by UAVs. -Employed background subtraction based on Gaussian mixture models to detect moving pedestrians and used Kalman filter to track them. <i>Advisor: Prof. Yuchuan Du</i></li></ul>	<i>June 2015 - June 2016</i>

*Course Projects, Tongji University*

- **Implementation of an OFDM systems using GNU Radio** *Summer 2015*  
- Built an OFDM based communication systems based on the GNU Radio Software platform.
- **Evaluations and Comparisons on Edge Detection Methods** *Summer 2015*  
- Address qualitative and quantitative comparisons across common Edge Detection Methods such as Canny, Sobel, Laplacian, Prewitt, Roberts etc.
- **An Analog Signal Generator** *Summer 2014*  
- Built a Sine-wave Oscillator to generate sinusoidal wave.

PROFESSIONAL  
EXPERIENCE

**Delphi Technical R&D Center, Shanghai, China**

*July 2015 - Sept. 2015*

*System Engineering Intern*

- Used Altium Designer software to design PCB Layout for the Intergrated test bench of Body Control Module (BCM).
- Supervisor: Zhigang Yao, Engineering Group Manager*

AWARDS

- Mathematical Contest in Modeling (MCM), Honorable Mention *Spring 2016*
- China Undergraduate Mathematical Contest in Modeling (CUMCM), Third-class Prize *Fall 2015*
- Student Innovation Training Program, First Prize, Tongji University *Summer 2016*
- Semester Scholarship, TU Darmstadt (DAAD) *Fall 2014*
- Academic Record Scholarship, Tongji University *Fall 2013*

SKILLS

Programming languages

- C++, C#, Python, MATLAB, Linux Shell

Programming Tools

- Caffe, Tensorflow, OpenCV, L<sup>A</sup>T<sub>E</sub>X, Unity

EDA Tools

- Altium Designer, Protel, Multisim

Languages

- Chinese: Native
- English: Fluent
- German: Intermediate

EXCURRICULAR  
ACTIVITIES

**Technische Universitaet Darmstadt, Darmstadt, Germany**

*Oct. 2014 - Feb. 2015*

*Exchange Student*

**Tongji University Students' Union**

*Sept. 2013 - Jan. 2015*

*Student Member*

REFERENCES

**Shenghua Gao**

Assistant Professor

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