

Fangrui Zhu

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Education	Doctor of Philosophy, Computer Science	<i>Northeastern University, 2021.9 – present</i>
	<ul style="list-style-type: none">- Advisor: Prof. Huaizu Jiang.- Working on Human-Object reasoning.	
	Master of Science, Statistics	<i>Fudan University, 2018.9 – 2021.7</i>
	<ul style="list-style-type: none">- GPA: 3.58/4.0.- Advisor: Prof. Yanwei Fu.- Working on statistical learning and computer vision.- Thesis: Self-supervised representation learning from videos by exploiting spatio-temporal consistency.	
	Bachelor of Engineering, Software Engineering	<i>Tongji University, 2014.9 – 2018.7</i>
	<ul style="list-style-type: none">- GPA: 4.68/5.0, Rank: 6/165.- Advisor: Prof. Lin Zhang & Prof. Shuang Liang.- Software development and testing, architecture design and process management.- Research on computer vision.- Thesis: Learning pedestrian attributes for person re-identification.	
Research Interests	<ul style="list-style-type: none">- Open-vocabulary Scene Parsing- Vision-Language Grounding	
Experience	Research Intern	<i>Amazon Alexa AI, 2022.6 – 2022.9</i>
	<ul style="list-style-type: none">- Advised by Dr. Emre Barut.- Topic: Mitigating Bias in Image Captioning.	
	Research Intern	<i>Baidu Research, 2021.7 – 2021.9</i>
	<ul style="list-style-type: none">- Research Intern in IDL group.- Advised by Dr. Guodong Guo.- Topic: Vision-language representation learning.	
	Research Intern	<i>Amazon AWS, 2020.6 – 2020.12</i>
	<ul style="list-style-type: none">- Research Intern in GluonCV group.- Advised by Dr. Yi Zhu.- Topic: Attention-based semantic segmentation.	
	Research Assistant	<i>Computer Vision Lab at Fudan University, 2018.9 – 2020.5</i>
	<ul style="list-style-type: none">- Advisor: Prof. Yanwei Fu.- Cloth-inconsistent person re-identification (ReID) and occluded ReID.- Worked closely with Dr. Weidi Xie from the VGG group on self-supervised video object segmentation.	
	Research Intern	<i>University of British Columbia, 2017.6 – 2017.9</i>

- Worked as a Mitacs Research Intern.
- Fully funded by China Scholarship Council (CSC) and Mitacs.
- Advisor: Prof. James Little and Dr. Jianhui Chen.
- Low-level computer vision based camera calibration for sports video understanding.

Selected Awards	<i>Second prize</i> , Award on Fudan Excellent Student Scholarship (top 15%)	2020
	<i>Second prize</i> , National Post-Graduate Mathematical Modeling Contest	2019
	<i>Second prize</i> , Award on Fudan Excellent Student Scholarship (top 15%)	2019
	'GouXiong Hui' data mining project funding (¥2,000)	2019
	Shanghai Outstanding Graduate Student Award (top 5%)	2018
	CSC and Mitacs Funding for undergraduate internship (\$5,000 CAD)	2017
	'Bo Shi' Scholarship (top 10%)	2017
	Award on Tongji Excellent Social Activity Student Scholarship	2017
	<i>Second prize</i> , 'Challenge Cup' technological innovation competition	2017
	Tongji Outstanding Undergraduate Student (top 5%)	2016
	<i>First prize</i> , Award on Tongji Excellent Student Scholarship (top 5%)	2016
	Award on Tongji Excellent Social Activity Student Scholarship	2016
	Tongji Outstanding Undergraduate Student (top 5%)	2015
	<i>First prize</i> , Award on Tongji Excellent Student Scholarship (top 5%)	2015
	Shanghai Technological Innovation Projects for Undergraduates (funded with ¥10,000)	2015

Publications	[1] Fangrui Zhu , Yi Zhu, Li Zhang, Chongruo Wu, Yanwei Fu, Mu Li. A Unified Efficient Pyramid Transformer for Semantic Segmentation, 2021 Proceedings of the IEEE/CVF International Conference on Computer Vision Workshop (ICCVW), 2667-2677.
	[2] Fangrui Zhu , Li Zhang, Yanwei Fu, Guodong Guo, Weidi Xie. Self-supervised Video Object Segmentation, arXiv 2006.12480.
	[3] Xuelin Qian, Wenxuan Wang, Li Zhang, Fangrui Zhu , Yanwei Fu, Tao Xiang, Yu-Gang Jiang, Xiangyang Xue. Long-Term Cloth-Changing Person Re-identification, 2020 IEEE Asian Conference on Computer Vision (ACCV).
	[4] Yu Xie, Fangrui Zhu , Yanwei Fu. Main-Secondary Network for Defect Segmentation of Textured Surface Images, 2020 IEEE Winter Conference on Applications of Computer Vision (WACV), 3531-3540.
	[5] Jianhui Chen, Fangrui Zhu , James J. Little. A Two-Point Method for PTZ Camera Calibration in Sports, 2018 IEEE Winter Conference on Applications of Computer Vision (WACV), 287-295.

Teaching Experience	- Teaching Assistant for DATA620007 Data Mining (2020 Spring), Fudan University.
	- Teaching Assistant for DATA130020.01 Principle and Application of Database (2019 Spring), Fudan University.

Technical Skills	Programming: Python, C/C++, Matlab, R, JavaScript, HTML, CSS
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Tools: PyTorch, Caffe, Opencv, LaTeX, the scientific Python stack (numpy/scipy, scikit-learn, pandas, etc.), NodeJS, Bootstrap, Gurobi, Sketch, Bash, Git

Platform: Linux, Mac OSX, IOS, Amazon Web Services (AWS)

Language: IELTS:7.5; GRE: 323+4.0