

Yu Shi

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EDUCATION

PEKING UNIVERSITY	Beijing, China	9/2018–present
<i>School of Electronics Engineering and Computer Science</i>		
<ul style="list-style-type: none">Major in Electronics and Information Engineering, Overall GPA: 3.573/4.000 (Freshman3.41, Sophomore3.59, Junior3.85)Programming & software: MATLAB, Cadence Allegro, Python, C++, Verilog; Latex, OriginLanguages: GRE 323		
<i>Main Course and Score</i>		
Principle of Communications (Honor Track)	96	Basic Electronics Lab 86
Introduction to Electromagnetic Big Data	95	Elements of Information and Coding Theory 88
Electrodynamics (B)	94	Methods of Mathematical Physics 87
Microprocessor and Interface Technology	94	Machine Learning 87
Advanced Mathematics (I)/(II)	84/91	Signal and System (Honor Track) 86
Computer Aided Design for Electronic Circuits	91	Analysis and Design of Analog Circuits 86
Python Programming and Application	95	Digital Circuit Design (Honor Track) 83
Virtual Reality Content Creation	90	Experiment on Intelligent Hardware Applications 84
Digital Signal Processing	89	Smart Device Design Project 87

RESEARCH EXPERIENCE

3D Point Cloud Processing System and Algorithm	6/2020-2/2021
<i>Independent Research, Supervised by Prof. Chuanchuan Yang, Institute of Advanced Optical Communication Systems and Networks, Peking University</i>	
<ul style="list-style-type: none">Mastered the theory of point cloud inpainting techniques applied in LiDAR dataReproduced the simulation result of inpainting method using the local smoothness and the non-local self-similarityProposed an improved point cloud inpainting method with normal-based feature matching strategy	

3D Point Cloud Reconstruction and Volume measurement	6/2021-present
<i>Independent Research, Supervised by Prof. Chuanchuan Yang, Institute of Advanced Optical Communication Systems and Networks, Peking University</i>	
<ul style="list-style-type: none">Designed to propose a point cloud processing system to reconstruct 3D models like human faces and measure the volumes	

PUBLICATIONS

Y. Shi. A method and device for signal repairment and enhancement. 202110172219.X (Pending)
Y. Shi, C. C. Yang. Point Cloud Inpainting with Normal-based Feature Matching. Multimedia Systems. (Under review)
Y. Huang, C. C. Yang, **Y. Shi,** Hao Chen. PLGP: Point Cloud Inpainting with Patch-based Local Geometric Propagating. (Under review)

SELECTED COURSE PROJECT

PWM Modulation System
<ul style="list-style-type: none">Mastered the basic principles of PWM modulation in communication systemsDesigned and optimized the circuit system diagram to implement PWM modulation
Mask detection based on Faster Region-Convolutional Neural Network (R-CNN)
<ul style="list-style-type: none">Surveyed about R-CNN, Fast R-CNN, Faster R-CNN, YOLO and SSDTrained a PyTorch implementation of R-CNN model to detect whether people were wearing masks
Automatic pet feeder system based on Raspberry Pi 4b
<ul style="list-style-type: none">Implemented an intelligent electronic system functioning as an automatic pet feeder which can be controlled by web pageRealized the design of Printed Circuit Board (PCB) and debug of sensor in the group