

# Xu Han

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<b>Education</b>	<b>University of Cincinnati</b>	8/2017 – current
	Ph.D. student in Civil Engineering (Transportation Engineering track)	
	<b>Washington University in St. Louis</b>	7/2017 – 4/2019
	Master of Science in Electrical Engineering (data analysis track)	
	<b>University of Cincinnati</b>	1/2013 – 4/2017
	Bachelor of Science in Electrical Engineering	
<b>Research Experience</b>	<b>Cooperative Merge via Deep Reinforcement learning</b>	
	Advisor Dr.Jiaqi Ma, 2019/10 – present	
	<ul style="list-style-type: none"><li>Designed and applied Actor-Critic deep reinforcement learning agent to control multiple CAV's merging behavior</li><li>Created multi-layer state-space to achieve CAV cooperation</li><li>Designed and implemented the merging environment in Vissim and established communication between simulation and agent</li></ul>	
	<b>Roof Risk Classification and Identification</b>	
	Advisor Dr.Jiaqi Ma, 2019/10 – present	
	<ul style="list-style-type: none"><li>Collaborated with Cincinnati insurance company (CIC) to design a deep learning model for roof feature identification and classification</li><li>Implemented data extraction pipeline design using vendor's API; communicate with CIC and vendors for data cleaning</li><li>Collaborated with the architecture team to analysis roof risk features</li></ul>	
	<b>Autonomous Vehicle Simulation Under Carla and LGSVL</b>	
	Advisor Dr.Jiaqi Ma, 2019/10 – present	
	<ul style="list-style-type: none"><li>Use "Autoware" to control the simulated autonomous vehicle</li><li>Establish ROS communication between the simulator and autonomous algorithm for advanced algorithm implementation/validation</li></ul>	
<b>Work Experience</b>	<b>Image processing Intern</b>	<b>General Electric, Beijing China</b>
	Developed a CNN model for CT image Segmentation	
	<b>Intelligent Algorithm Intern</b>	<b>General Motor, Shanghai China</b>
	Participated in the development of the parking space recognition algorithm and face recognition algorithm	
<b>Skills</b>	Python, MATLAB, Linux Environments, ROS, Deep learning Frameworks, Machine learning libraries, Vissim, Vissim scripting	