

Xu Han

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Education	University of Cincinnati	8/2017 – current
	Ph.D. student in Civil Engineering (Transportation Engineering track)	
	Washington University in St. Louis	7/2017 – 4/2019
	Master of Science in Electrical Engineering (data analysis track)	
	University of Cincinnati	1/2013 – 4/2017
	Bachelor of Science in Electrical Engineering	

Research Experience Cooperative Merge via Deep Reinforcement learning

Advisor Dr. Jiaqi Ma, 2019/10 – present

- Designed and applied Actor-Critic deep reinforcement learning agent to control multiple CAV's merging behavior
- Created multi-layer state-space to achieve CAV cooperation
- Designed and implemented the merging environment in Vissim and established communication between simulation and agent

Roof Risk Classification and Identification

Advisor Dr. Jiaqi Ma, 2019/10 – present

- Collaborated with Cincinnati insurance company (CIC) to design a deep learning model for roof feature identification and classification
- Implemented data extraction pipeline design using vendor's API; communicate with CIC and vendors for data cleaning
- Collaborated with the architecture team to analysis roof risk features

Autonomous Vehicle Simulation Under Carla and LGSVL

Advisor Dr. Jiaqi Ma, 2019/10 – present

- Use "Autoware" to control the simulated autonomous vehicle
- Establish ROS communication between the simulator and autonomous algorithm for advanced algorithm implementation/validation

Work Experience	Image processing Intern	General Electric, Beijing China
	Developed a CNN model for CT image Segmentation	

Intelligent Algorithm Intern	General Motor, Shanghai China
Participated in the development of the parking space recognition algorithm and face recognition algorithm	

Skills	Python, MATLAB, Linux Environments, ROS, Deep learning Frameworks, Machine learning libraries, Vissim, Vissim scripting
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