YIMENG LI

EDUCATION

2016-Present **PhD**, Computer Science

George Mason University, Fairfax, VA, USA Research Interests: Robotics, Computer Vision

2016-2018 MS, Computer Science

George Mason University, Fairfax, VA, USA

2010-2014 BE, Software Engineering

East China Normal University, Shanghai, China

EXPERIENCES

2016-Present Research/Teaching Assistant

Computer Vision and Robotics Lab

Department of Computer Science, George Mason University

2021 SUMMER Research Intern

UII America, Inc

2020 SUMMER Research Intern

Honda Research Institute US, CA

2018 SUMMER Research Intern

AFRL Mathematical Modeling and Optimization Institute, FL

RESEARCH PROJECTS

2018-Present Robot Navigation on Simulated Environments

Using deep learning techniques to train a robot to do short-

range and long-range visual navigation.

2021 Summer Multiview Human Pose Estimation

Estimate important human joint locations in the world frame

using images taken by cameras pre-setup at 4 viewpoints.

2020 SUMMER BEV Object Detection from Stereo

Doing BEV object detection on KITTI, using rgb image and

frontal depth image and aiming at adapting to multiple 2d object detection input and different depth estimation methods.

2019 Summer Guard Rail Detection on Building Images

Doing guard rail detection on high-resolution images of build-

ings under construction. This project motivates from auto-

matic safety inspection for building construction.

2022 Y. Li*, A. Debnath*, G.J. Stein, J. Košecká
"Comparison of Model Free and Model-Based LearningInformed Planning for PointGoal Navigation"
CoRL 2022 Long-Horizon Planning Workshop

2021 Y. Li, J. Košecká "Uncertainty Aware Proposal Segmentation for Unknown Object Detection"

WACV 2022 DNOW Workshop

2020 **Y. Li**, J. Košecká

"Learning View and Target Invariant Visual Servoing for Navigation"

ICRA 2020

PREPRINTS

2023 **Y. Li***, A. Debnath*, G.J. Stein, J. Košecká "Learning-Augmented Model-Based Planning for Visual Exploration" arXiv:2211.07898

2022 S. Shrestha, **Y. Li**, J. Košecká "Self-supervised Pre-training for Semantic Segmentation in an Indoor Scene" arXiv:2210.01884

2022 **Y. Li**, B. Esmaeili, M. Gheisari, J. Košecká, A. Rashidi "Using Unmanned Aerial Systems for Assessing and Monitoring Fall Hazard Prevention Systems in High-rise Construction Projects"

arXiv:2209.13137

2020 G. Georgakis, **Y. Li**, J. Košecká "Simultaneous Mapping and Target Driven Navigation" arXiv:1911.07980

Computer Skills

PL C/C++, Python, Java OTHER OpenCV, PyTorch, Matlab