Jun Wang

PERSONAL INFORMATION

Website https://wonggwan.github.io
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EDUCATION

Ph.D. in Electrical Engineering 2021 - 2026 (expected)
Washington University in St. Louis St. Louis, MO
Advisor: Yiannis Kantaros

M.S. in Robotics 2019 - 2021
University of Pennsylvania Philadelphia, PA
Advisor: George J. Pappas and Hamed Hassani
Thesis: "Model-Based Robust Semantic Segmentation"

B.E. in Software Engineering 2015 - 2019
Sun Yat-Sen University Guangzhou, China
Thesis: "Combined Detection Approach to DNS Spoofing Attacks"

Exchange Program, Computer Engineering 2018
Sungkyunkwan University Suwon, Republic of Korea

WORKING EXPERIENCE

Teaching Assistant, Applied Machine Learning(CIS 419/519) Spring 2021
University of Pennsylvania

Graduate-Level Course Grader 2020-2021
University of Pennsylvania
- ESE 547: Legged Locomotion
- ESE 512: Dynamical Systems
- ESE 500: Linear Systems

RESEARCH EXPERIENCE

Model-Based Robust Semantic Segmentation 06/2020-Now
GRASP Lab, University of Pennsylvania Philadelphia, PA, USA
Advisor: George Pappas, Hamed Hassani
- Investigated that most works have only focused on the robustness of image classification
- Tackled challenges on the robustness of 2D semantic segmentation under natural variations
- Implemented ResNet-based segmentation model with pyramid pooling as context information catcher
- Implemented model-based robust training algorithms with the help of domain adaptation methods
- Achieved higher prediction accuracy on Cityscapes dataset than PSPNet

Convolutional Gated Recurrent Network for Video Matting 09/2020-12/2020
University of Pennsylvania Philadelphia, PA, USA
- Current matting method have poor performance when an image has complicated textures
- Proposed a video matting method using FCN-based neural network and Convolutional GRU
- Proposed a sequential image matting dataset with 13,500 training and 5400 validation images
- Managed to capture the temporal information among frames in a video
- Improved prediction accuracy by 4% on sequential images compared to pure FCN-based model