

# Jun Wang

## PERSONAL INFORMATION

**Website** <https://wonggwang.github.io>  
**Email** [junw@wustl.edu](mailto:junw@wustl.edu)

## 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

**Research Intern** 05/2021-1/2022  
Robotics & Sensor Physics Department Cambridge, MA  
Schlumberger-Doll Research Center, Schlumberger

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

## RESEARCH EXPERIENCE

**Model-Based Robust Semantic Segmentation** 06/2020-05/2021  
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