

Yongho Son

✉ yhson@hanyang.ac.kr 🌐 hy-yhson.github.io

Education

Hanyang University, Seoul, Republic of Korea

Mar 2022 – current

The integrated Master's and Ph.D Program in Artificial Intelligence

Supervised by Professor Je Hyeong Hong

- GPA: 4.3/4.5 (until 5th semester)

The State University of New York, Stony Brook University

Sep 2015 – Mar 2022

Bachelor of Engineering in Computer Science

- GPA: 3.51/4.0 (Cum Laude)

Research Experience

Graduate Student Research Assistant (Master Course)

Seoul, Republic of Korea

School of Artificial Intelligence at Hanyang University

Feb 2022 – Dec 2023

Supervised by Professor Jun Won Choi

1. Research on 3D object detection utilizing temporal information
 - Designed a new gate function in LSTM model, which exploits temporal information to alleviate motion blur and occlusion problems
2. Research on deep learning-based fusion methodology for semantic segmentation
 - Developed RGB-Depth sensor fusion network incorporating fine-detailed and global contextual information through effective bidirectional addition operation.

Research course (CSE487) - Research in Computer Science

New York, USA

Stony Brook University

Jul 2021 – Dec 2021

Supervised by Professor Byungkon Kang

- Developed a recursive multi-sentence summarization model by utilizing transformer-based architecture.

Publications

Long-Tailed Defect Detection and Classification in SEM Wafer with Diverse Backgrounds and Scales

2025

(Under review)

T. Park*, **Yongho Son***, S. Moon*, S. Han, J. H. Hong

FUN-AD: Fully Unsupervised Learning for Anomaly Detection with Noisy Training Data

Feb 2025

Winter conference on applications of computer vision (WACV)

J. Im*, **Yongho Son***, J. H. Hong

PIDDNet: RGB-Depth Fusion Network for Real-time Semantic Segmentation

Oct 2023

International Conference on Information and Communication Technology Convergence (ICTC)

Y. Shin, **Yongho Son**, J. W. Choi

3D Object Detection using Dynamic • Static Motion Information from Multi-camera Image Sequences

Apr 2023

The 33rd Joint Conference on Communications and Information (JCCI)

Yongho Son, J. Kim, J. W. Choi

Work Experience

Software Developer

Smart Radar System Inc.

Pangyo Innovalley

Jun 2020 – Aug 2020

- Developed human posture (standing, sitting, lying, and falling) CNN-based detection model using a 4D imaging radar sensor.
- Delivered real-time prediction with detection test accuracy of 97% using feature-based learning.

Computer Technician

Republic of Korea Army

17th Infantry Division

May 2018 – Jan 2020

- Responsible for the regular backups and design, installation, and maintenance of all types of servers and networks.

Training and Certification

Intensive Research Training Program in AI

Mar 2021

- Certification of completion in Multi-Image Captioning

Military Software Collective Training

Oct 2019

- Certification of course completion in Application Development

SQL Developer License (SQLD)

Jul 2020

- Certified from Korea Data Agency

Linux Master License

Sep 2017

- Certified from Korea Association for ICT Promotion

Technologies

Programming Languages and Environments: Python, Jupyter/Python, UNIX/BASH, Java, C/C++, SQL (MySQL, PostgreSQL), MATLAB, PHP, HTML/CSS, Jekyll, Latex.

Computer Science and Software Engineering: machine learning (scikit-learn), deep learning (Pytorch and Tensorflow/Keras), version control (Git), mobile application development (Android), web development (Flask), OOP, operating systems (system calls and threading), Raspberry Pi, Jetson Orin