Yesung Hwang B.Sc.

yesung.hw@gmail.com

Education

Eindhoven University of Technology — Eindhoven, The Netherlands
M.Sc. in Artificial Intelligence and Engineering Systems — 2024.09 – Present
- Current Grade: 9.23/10.0 (Dutch Grading System)

Yonsei University — Seoul, Republic of Korea
B.Sc. in Electrical and Electronic Engineering, Minor in Physics — 2015.03 – 2023.08
- Thesis: *Accelerated mGRE Image Reconstruction for MWI via Deep Learning*
- Advisor: Prof. Dong-hyun Kim
- Final Grade: 98.1/100

Experience

TNO — Helmond, The Netherlands
Project Internship, as a Part of AI&ES Program — 2025.02 – 2025.06
- **Traffic Light Perception System for Automated Driving in the Netherlands**
  Delivered full-stack solution for traffic light perception: data collection, annotation, object detection, and 3D tracking.

KAIST (Visual AI Lab) — Daejeon, Republic of Korea
Undergraduate internship, advised by Prof. Minhyuk Sung. — 2021.12 – 2022.12
- **Hyperbolic Embedding Space for Language-driven Shape Manipulation**
  Derived the projection of text to shape region in hyperbolic CLIP embedding space to reduce training time.
- **Differentiable Discrete Poisson Solver**
  Devised fast differentiable Poisson equation solver, enabling deep learning integration.

Kakao Mobility — Seoul, Republic of Korea
Research Intern — 2021.07 – 2021.08
- Developed real-time continuous-time SLAM using bounded surface features for large-scale indoor mapping.
- Implemented multi-LiDAR movement distortion correction using IMU and LiDAR–LiDAR calibration.

Stryx (acquired by Kakao Mobility) — Seoul, Republic of Korea
Research Intern — 2020.01 – 2021.02
- Developed pointcloud registration algorithms for city-scale HD mapping.
- Designed GPS noise detection and reduction methods for precise localization.
- Improved SLAM feature extraction for indoor–outdoor map integration.
- Worked on LiDAR+IMU localization algorithms for tunnels.

Republic of Korea Army — Republic of Korea
Coast Guard — 2018.03 – 2019.11
- Mandatory Military Service.

Patents

Method of estimating the location of a moving object using vector map 2020
(KR102624644B1)
- Work done at Kakao Mobility.

Awards

Yonsei Honors Program – Merit-based Full Scholarship, Yonsei University 2015.03

Skills

Programming: `Python`, `C++`, `C#`, `ROS`, `Git`, `Unity`

Languages: Korean (Native), English (C1), Dutch (A1)

Extras

Backpacking | Around the World — 2017.07 – 2017.09, 2023.02 – 2023.08

- Period of personal exploration.

Playing/Listening Music | Jazz/Rock/House — Whenever I have time

- Playing Guitar, Bass and sometimes Djembe.

Guitar/Bass Effect Development | Audio Circuit Design — Whenever I have time

- Nonlinear analog circuit design for guitar/bass signal processing.
- Simulation of effects/amplifiers for real-time deployment based on NAM.
- Building effect pedals with designed circuits.