# Hyunjoong Lee

💼 B.S. student in the School of Electronic and Electrical Engineering at Kyungpook National University (KNU)

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## 👤 Professional Profile

I am a B.S. student in the School of Electronic and Electrical Engineering at Kyungpook National University (KNU). My research interests cover automotive embedded systems and I am pursuing to implement the entire full stacks from low-level embedded firmware to autonomous driving algoritthm, including the hardware systems, by interoperating human-interative interfaces.

## 🏢 Research Experience

**Multi-Camera Interoperable Emulation Framework (Jan 2024 - Apr 2024):** Implementing Advanced Driver Assistance System (ADAS) using only a monocular camera. Streaming real-time screen to the web, receiving a frame, and transmitting information using TCP/IP communication. Detecting objects using YOLO. Removing distortion using camera calibration. Controling a vehicle remotely. Updating an algorithm using Over-the-air programming.

**3D Mapping based on a Depth Map using Stereo Vision (Apr 2024 - ):** Implementing own depth map generation model. Implementing 3D map based on depth map. Removing a shadow. Improving a realtime processing.

## 🎓 Education

**Kyungpook National University (KNU)**     **In progress:** *B.S. student*
School of Electronic and Electrical Engineering

## ⚙ Technical Skills

- ✔ Autonomous Driving
- ✔ Camera Calibration
- ✔ Computer Vision
- ✔ Edge-Cloud AI Computing

## ✳ Selected Publications

- ✳ Multi-Camera Interoperable Emulation Framework Using Embedded Edge-Cloud AI Computing for Autonomous Vehicle Driving - IEEE Vehicular Networking Conference (VNC), 2024.

## 🔤 Languages

- 🌐 Korean - Native
- 🌐 English - Business Competence

## 👍 References