BYUNGKEUN CHOI

: (+82) 10-8320-2316 ◇ : cbcc12345@hanyang.ac.kr / cbcc1234@gmail.com
Seoul, Korea
: github.com/DukiChoi ◇ CV download link

EDUCATION

M.S. in Electronic Engineering, Hanyang University — September 2022 - February 2025
Advisor: Jeonghee Lee
Research Area: Bio-signal Processing and NeuroEngineering

B.A. in Electrical Engineering, Hanyang University — February 2013 - September 2022

SKILLS

Technical Skills

- Embedded software development(C++, Arduino)
- Android application development(Java)
- VR application development(Unity, C#)
- Data analysis(Matlab, Python)
- PCB design and development(KiCad) and PCB soldering and assembly

Language

- Korean(Native)
- English(Fluent): TOEIC 910, TOEIC Speaking 170(AL)
- Japanese(Intermediate): JLPT N3(before revision)

EXPERIENCE

Undergraduate Research Student
Embedded Security and Internet of Things Lab, Hanyang University

- Developed an embedded program to track sensor positions using data from a 9-axis IMU sensor with filtering techniques, and programmed an MCU board in C++ and Python for data visualization. (Github link)

PROJECTS

Development of a Worker Safety Alert Android Application Using UWB Technology

- Developed an Android application that receives distance data from UWB anchors via BLE and provides real-time safety alerts to workers when within a specified range of machinery in construction environments. (Github link)

Development of a Pipe Detection App Using IMU Sensors and Magnetometer Data

- Developed an Android application that uses magnetometer data from an IMU sensor on an nRF52 board, programmed via Arduino, to detect metal pipes. Data is transmitted via BLE for real-time detection and visualization. (Github link)

Real-Time Location Visualization Application on Android

- Developed an Android application that visualizes real-time user location data which is acquired in advance through UWB triangulation, incorporating Android animation and BLE. (Github link)

Development of a Hand Tremor Measurement System Integrating Virtual Reality and HCI Devices

- Developed a hand tremor measurement system integrating Virtual Reality and custom-designed HCI devices to accurately analyze tremors in patients with conditions like Parkinson's disease. (Github link)

PUBLICATIONS

Development of a Virtual Reality System for the Precise Measurement and Evaluation of Movement Disorders
Byungkeun Choi, Jeonghee Kim*
Paper in preparation

Development of a Real-time Wireless Multi-node Metal Pipeline Localization System via Bluetooth Link
Bing Jiang, Byungkeun Choi, Hyunsang Cho, Hangue Park, Jeonghee Kim*
IEEE/IEIE ICCE-Asia 2024

TEACHING EXPERIENTCE

Teaching Assistance, Microprocessor, Hayang University

Teaching Assistance, Embedded System Design, Hanyang University

Teaching Assistance, Digital Signal Processing, Hanyang University

Personal Assistant to a Foreign Professor(David Wagner), Hanyang University