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   *Sep. 2022 - Feb. 2025*
Advisor: Jeonghee Kim
Research Area: Bio-signal Processing and NeuroEngineering

B.A. in Electrical Engineering, Hanyang University   *Feb. 2013 - Sep. 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   *Jan. 2022 - Aug. 2022*
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 a MCU board in C++ and Python for data visualization. (Github link)

PROJECTS

Development of a Worker Safety Alert Android Application Using UWB Technology

Jul. 2022 - Jan. 2023

- 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)

Real-Time Location Visualization Application on Android   *Jan. 2023 - Mar. 2023*

- 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 Pipe Detection App Using IMU Sensors and Magnetometer Data

Jun. 2023 - Sep. 2023

- 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](#))

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

Nov. 2023 - Dec. 2024

- 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

<u>Byungkeun Choi</u> (2025). "A Virtual Reality-Based Assessment System for Tremor Disorders Using CNN and RNN for Comprehensive Symptom Analysis"
Hanyang University, Department of Electronic Engineering
Advisor: Prof. Jeonghee Kim
Bing Jiang, <u>Byungkeun Choi</u>, Hyunsang Cho, Hangue Park, Jeonghee Kim* (2024). "Development of a Real-time Wireless Multi-node Metal Pipeline Localization System via Bluetooth Link"
IEEE/IEIE ICCE-Asia

TEACHING EXPERIENTCE

Teaching Assistance, Microprocessor, Hayang University	*Sep. 2022 - Feb. 2023*
Teaching Assistance, Embedded System Design, Hanyang University	*Mar. 2023 - Aug. 2023*
Teaching Assistance, Digital Signal Processing, Hanyang University	*Sep. 2023 - Feb. 2024*
Personal Assistant to a Foreign Professor (David Wagner), Hanyang University	*Mar. 2024 - Aug. 2024*