WONSEO CHOI

Seoul, Republic of Korea

1202won@naver.com

https://wonseo-c.github.io/

EDUCATION

Hanyang University   Mar 2022 - Feb 2024

Master of Science in Electronic Engineering

· *Research Topic: AI for Network/Embedded Systems and Modeling/Simulation of Cyber-Physical Systems*
· *Overall GPA: 4.44 / 4.5*

Hanyang University   Mar 2017 - Feb 2022

Bachelor of Science in Electric Engineering

· *Minor in Electronic Engineering*
· *Overall GPA: 4.07 / 4.5 (Major GPA: 4.18 / 4.5)*

RESEARCH PROJECT

AI for Network/Embedded Systems

· Localize WiFi Access Points using Convolutional Neural Network (with KT)
· Predict Path-Loss using Deep Neural Network

Modeling/Simulation of Cyber-Physical Systems

· Support Mutation in Lingua Franca by Implementing Savina Benchmark (with U.C. Berkeley)

Additional Proejcts

· Fuse IMU Sensors for Location Tracking using Kalman Filter (MCU Board)
· Develop Android App for Handwriting Number Recognition using Google ML Kit
· Develop Apple Watch App Integrating UWB Technology and Advanced Medical Data Monitoring
· Design Localization System using IMU Tag

PAPER

1. **W. Choi** et al., "Enhanced Wi-Fi Access Point Positioning Using Hexagonal CNN With Mobile Data and Urban Information," in IEEE Internet of Things Journal, vol. 11, no. 20, pp. 33820-33832, 15 Oct.15, 2024.

2. Sung, S., **Choi, W.**, Kim, H., & Jung, J. I. (2023). Deep Learning-Based Path Loss Prediction for Fifth-Generation New Radio Vehicle Communications. IEEE Access.

3. Kim, T. M., **Choi, W.**, Choi, I. Y., Park, S. J., Yoon, K. H., & Chang, D. J. (2021). Semi-AI and Full-AI digitizer: the ways to digitalize visual field big data. Computer Methods and Programs in Biomedicine, 207, 106168.

4. Suh, S., Cheon, S., **Choi, W.**, Chung, Y. W., Cho, W. K., Paik, J. S., ... , & Lee, Y. O. (2022). Supervised segmentation with domain adaptation for small sampled orbital CT images. Journal of Computational Design and Engineering, 9(2), 783-792.

EXPERIENCE

LG Display
Big Data Scientist/Engineer

Mar 2024 - Current
Paju, Gyeonggi-do

· Analyze big data to improve yield.
· Develop R/Python code for Big data processing

Catholic Univ. of Korea Yeouido ST. Mary's Hospital
Research Intern

Aug 2020 - Feb 2021
Seoul, Korea

· Develop an automated AI system to extract test results from image-based result sheets using Big Data Processing techniques for AI applications.
· Perform experiments and implement research on domain adaptation through Generative Adversarial Networks (GANs).

KIST Europe
Intern

Feb 2020 - Jul 2020
Saarbrücken, Germany

· Develop an automated AI system to acquire experimental data, enabling heart rate calculation by analyzing size variations of heart images across frames.
· Enhance cell tracking performance by optimizing the U-Net layer and analyzing the Localization component for accurate cell tracking.

TECHNICAL STRENGTHS

Computer Languages	Python(with PyTorch, Tensorflow, Keras), R, MATLAB, Assembly Java, C++, TypeScript
Developing Environments	Mac, Windows, Linux (Ubuntu Server)

GRADUATE PORJECT

1. Detect Kickboard with Embedded Hardware (Jetson Nano Board)

2. Untact-kiosk: Design and develop a touchless keyboard and mouse using AI detection and clustering.

ONLINE-DEMO

Wonseo Choi, Yongoh Lee, "Attention-aware U-Net toward the interpretability of single cell segmentation", KCCV 2020, Republic of Korea (Online) - demo video

OTHER ACTIVITIES

겨자씨 키움센터 Feb 2021 - Aug 2021
Founding Activities

· Obligatory recording paper Digitization Artificial intelligence learning model (module) development

Visiting U.C. Berkeley Jun 2022 - Jul 2022 , Feb 2023

· Design and develop the implementation of Lingua-Franca mutations

TEACHIING ASSISTANT

Probability & Statistics Sep 2023-Dec 2023

· Generating Random Variables based on Probability distributions using MATLAB

Computer Network Sep 2023-Dec 2023

· Basic Algorithm for Computer Network using MATLAB

AWARDS

1. Academic Excellence Award in the Hanyang Univ. graduation ceremony *Feb 2022*

2. Encouragement Award in the "HY-Running Pace Maker" Program *Jan 2022*