**Research Interest: Human (Brain) Computer Interaction / Machine Learning**

**EDUCATION**

**BACHELOR OF ELECTRONIC ENGINEERING IN HANYANG UNIVERSITY, REPUBLIC OF KOREA**

BS in 1. Electronics Engineering and in 2. Biomedical engineering 02/2014 – 02/2021

Overall GPA: 3.78/4.00 Technical GPA: 3.87/4.00 (Upper Division GPA: 4.00/4.00)

**UNIVERSITY OF TEXAS AT AUSTIN, UNITED STATES OF AMERICA**

Exchange student in Electrical and Computer Engineering 08/2019 – 01/2020

Technical GPA: 4.00/4.00 (Upper Division GPA: 4.00/4.00)

**PROJECTS**

**Brain Computer Interface as an Emotional Assistant: A system that classifies the user’s emotional state, and give proper feedback automatically when needed** (02/2020 – present, Hanyang University, Republic of Korea)

* Making Computer more empathic and useful through Brain Computer Interface: real-time emotion assessing system that controls peripheral environment for user’s emotional recovery.

**Sensing Soft Finger: Silicon Finger with PVDF Sensor (**03/2020 – present, Industry-University Cooperation Foundation Hanyang University, Republic of Korea)

* Developing a tactile sensor(PVDF Piezoelectric Deflection Sensor) based precisely controllable pneumatic silicone finger to make human-robot interaction more comfortable.

**Lu Research Group Undergraduate Research Assistant, (**08/2019 – 12/2019, University of Texas at Austin, United States of America)

* Participated in research developing a wireless wearable device which can perform synchronous ECG and SCG measurement and extract various cardiac time intervals to track heart health.
* I fabricated new serpentine design for the Bluetooth layer and integrated it on the former model.

**CAPTCHA Project (**08/2020, Personal Project)

* Developed a system that can read distorted text with accuracy of 95%, by cropping the images into single character and augmenting images to prevent overfitting.

**LAB EXPERIENCE**

**Nano Bio Technology (NBT) Lab winter break internship** (01/2019 – 02/2019, Hanyang University, Republic of Korea)

* Participated Twistron research, energy harvesting in artificial muscle made with twisted Carbon Nano Tube(CNT) thread.
* Made CNT thread and tested how much energy each one can generate according to its thickness.

**Nano electronics device Lab (NDL) Undergraduate Research Assistant** (06/2018 – 12/2018, Hanyang University, Republic of Korea)

* Took a “Practical Electronic Engineering Research Initiative 1”course to as a NDL Lab intern.
* Tested microfluidic plate separation accuracy of cancer cells from blood model to optimize the injection speed of the model.

**ACADEMIC EXPERIENCE**

**Exchange student experience University of Texas at Austin** (08/2019 – 01/2020, United States of America)

* Undergraduate Research Assistant experience in LU Research Group
* Achieved Technical GPA 4.00/4.00 , Overall GPA 3.67/4.00

**SKILLS**

* Software: Python, Matlab, Simuliknk, Arduino, Catia
* Core skills: Machine Learning, Electronics Circuit, 3D design and printing, biomedical device, laser cutter
* Language: English(fluent), Korean(native), Chinese(fair)

**ACCOMPLISHMENTS and AWARDS**

National Science & Technology Scholarship 03/2014 – 06/2014

Republic Of Korea Army 08/2015 – 05/2017

Academic Honor award 03/2018 – 06/2018

Academic excellent grade award 09/2018 – 12/2018

Academic Honor award 03/2019 – 06/2019

Academic Excellent Scholarship 03/2019 – 06/2019

The Right Hands scholarship 03/2019 – 06/2019

The Right Hands scholarship 06/2019 – 12/2019

The Right Hands scholarship 03/2020 – 06/2020

The Right Hands scholarship 09/2020 – 12/2020