# JUNHYUN LEE

The Engineer

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github linkedin blog wechat: Ant_LJH


## TECHNICAL SKILLS

- Deep Learning, BioMedical Data Mining, Medical Instrumentation, Signal Processing, Web programming, Cell culture
- MATLAB, python(TensorFlow, Pytorch, Django), HTML & CSS

## PROJECTS

**P-HIS** *national project* AUG 2018 - Present

- Performed precedent study for personalized hospital information system

**Application of Deep Learning in Medical Image analysis** *laboratory project* DEC 2017 - Present

- Developed labelling tool
- Performed object detection for white blood cell microscopic image
- Implemented medical image segmentation

**Clinical Decision Support System for Depression** *national project Website* FEB 2018 - AUG 2018

- Performed precedent study for clinical decision support system about deep learning
- Developed the web server for deep learning model inference API

**Fabrication of Elastic Electrode** *laboratory project Website* DEC 2015 - JUL 2016

- Fabricated composite of carbon nanotube and polydimethylsiloxane
- Performed toxicity test of electrode with HaCaT cell line

**ECG (EKG) Authentication (Biometric) System** *personal project Website* DEC 2015 - JUL 2016

- Developed of wireless authentication system using ECG(ElectroCardioGram, or EKG)
- Fabricated the elastic electrode with carbon nanotube and polydimethylsiloxane
- Designed analog signal processing circuit and DAQ
- Developed bluetooth communication, digital signal processing and GUI

**Kiosk Production for Reading Room** *volunteer project Website* SEPT 2015 - JUN 2016

- Developed the programs for generation of personal barcode and barcode reader
- Developed the kiosk program for reading room in college

## EXPERIENCE

**Industry-Academia Collaboration Foundation** *Seoul, Korea* JUN 2017 - FEB 2018

Staff (Team leader: Prof. Jaewoo Kang, Korea University)

- Big data scientist human resource training team in national project "Brain Korea 21 PLUS", Korea Univ.

**Intelligent Bio-MEMS Laboratory** *Seoul, Korea* DEC 2015 - JUN 2016

Research Intern (Advisor: Prof. Sanghoon Lee, Korea University)

- Fabrication of elastic electrode using MEMS technology
- Composite of carbon nanotube(CNT) and polydimethylsiloxane(PDMS)
- Application of medical instrumentation using CNT/PDMS electrode

## EDUCATION

**Master's degree** in **Computer Engineering** at **Korea University** *Seoul* 2018 - Present

- Data Mining & Information Systems Laboratory
- Main research domain : Biomedical data mining, computer vision

**Bachelor's degree** in **Biomedical Engineering** at **Korea University** *Seoul* 2011 - 2017

- Intelligent Bio-MEMS Laboratory
- Main research domain : Biomedical instrumentation, MEMS technology

## SCHOLARSHIP

**NATIONAL SCIENCE SCHOLARSHIP** 2nd Semester, 2016

**KU UNDERGRADUATE RESEARCH SCHOLARSHIP** 2nd Semester, 2016

- Scholarship for honor undergraduate researcher

**WORK-STUDY SCHOLARSHIP** 1st Semester, 2016

- Scholarship due to kiosk volunteer project

**HONORS SCHOLARSHIP** 2nd Semester, 2015

**KU DREAM SCHOLARSHIP** 2nd Semester, 2011

## HONORS

**Semester High Honors** 2nd Semester, 2016
1st Semester, 2016
2nd Semester, 2015
1st Semester, 2015

## PATENT

**[PCT] Method for preparing conductive polymer composite and conductive polymer composite prepared therefrom** Application

**[KOREA] Conductive polymer composite** Registration

## LANGUAGES

**Korean** Native

**English** Casual

## ARTICLE

**Korean Post about TensorFlow tutorial**

**Korean Post about Building Github Page with Jekyll**

## ACTIVITY

**[Sub-Reviewer]**

- **BIBM '17**
- **IEEE ACCESS**
- **BIBM '18**