# **JUNHYUN LEE**

The Engineer

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github linkedin blog wechat: Ant\_LJH

#### **TECHNICAL SKILLS**

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

### **PROJECTS**

### **P-HIS** national project Website

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 Authentication System personal project Website

DEC 2015 - JUL 2016

- Developed of wireless authentication system using ECG(ElectroCardioGram)
- 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)

• 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)

- Medical instrumentation electrode using MEMS technology
- Composite of carbon nanotube and polydimethylsiloxane
- Application of medical instrumentation 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
WORK-STUDY SCHOLARSHIP	2nd Semester, 2016
<ul> <li>Scholarship for honor student researcher</li> </ul>	1st Semester, 2016
HONORS SCHOLARSHIP	2nd Semester, 2015
KU DREAM SCHOLARSHIP	2nd Semester, 2011

#### **HONORS**

Semester High Honors	2nd Semester, 2016
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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 of TensorFlow tutorial Korean Post of CS294 Reinforcement Learning, Fall semester, 2018 Korean Post of Building Github Page with Jekyll