# Yongwoo Cho

https://nomorecoke.github.io

#### **EDUCATION**

# **Sogang University**

**B.S** in Computer Science and Engineering (Mar 2012 - Feb 2017)

- 3.57 /4.5 (Cum laude)
- Professor recommendation scholarship (2012)
- T.A scholarship (2015 2016)

M.S in Embedded Computing Laboratory (Mar 2017 - Feb 2019 expected)

- 4.26 /4.5
- T.A scholarship (2017)

#### **AWARDS**

## **Machine Learning**

- 1st place (\$10,000 as awards), POSCO AI Challenge, 2018
- 1st place (\$10,000 as awards), SAMSUNG DATA Challenge, 2018
- 2<sup>nd</sup> place (\$1,000 as awards), Naver AI Hackerton, 2018

#### IoT

- 2<sup>nd</sup> place (\$2,000 as awards), SAMSUNG Open Source Conference(SOSCON), 2016
- 2<sup>nd</sup> place (\$600 as awards), Sogang Univ. LINC competition, 2016

# **Android App**

• 7th place (\$300 as awards), Sogang Univ. Start-Up weekend, 2017

#### **PUBLICATIONS**

[3] B. Kim, Y. Cho, H. Lee, Shared Last-Level Cache Management Scheme for Multimedia IPs in Handheld platform, work in progress

[2] Y. Cho, G. Han, H. Lee, Character Level Bi-Directional LSTM-CNN Model for Movie Rating Prediction, 한국정보과학회 학술발표논문집, 2018

[1] Y. Cho, G. Kim, Acquisition and Analysis of Multi-Point Temperature Data from Public Computer Labs for Designing Pleasant and Energy-Efficient Air Conditioning Rules, 한국정보과학회 학술발표논문집, 2016

#### **SKILLS**

#### **Technical**

- Advanced: C/C++, Python (Tensorflow for ML)
- Experience: Verilog, Lua for Arduino, Node.js, Java

## Language

- Korean Native
- English Intermediate

## **EXPERIENCE** Samsung Data Challenge, Jul 2018 – Sep 2018

- Missing data prediction with Nan Mask Denoising Auto Encoder (novel model)
- Inspired by Multiple Imputation with Denoising Autoencoders
- Add masking layer for distinguish NaN value data
- More details at <u>github</u> and <u>slideshare</u>

## POSCO Industrial AI challenge, Jul 2018 – Sep 2018

- Swell (very big wave) prediction with <u>Random Shuffle Convolutional Neural</u> Network (novel CNN model)
- Data collect from KMA (Korea Meteorological Administration)
- Data processing with data imputation, over sampling, under sampling
- More details at github and slideshare

# SK T & B code challenge, May 2018 – Jul 2018

- Movie recommendation with user view history data
- User and Item based collaborative filtering model

## Naver AI Hackerton, Mar 2018 – Apr 2018

- Movie rating prediction with naver movie review data
- Character level embedding for Korean language
- Bi-directional LSTM + CNN (inspired by Inception Net)
- More details at github and paper

# **Embedded Computing Laboratory, Mar 2017 – Dec 2017**

- Develop cache management policy with C++ open source simulator(gem5)
- Cache replacement and partition scheme for mobile multimedia IP

# Samsung Open Source Conference, Nov 2016

- Developer (Arduino part)
- Robotic vacuum hackerton
- Sensing dog poop and denote with Raspberry Pi and Arduino

# **Embedded Computing Laboratory Internship, Aug 2016 – Dec 2016**

• Object(player) detection for soccer video with C++, openCV

## Start-up Weekend Hackerton, Dec 2016

- Team Leader, Product manager, Developer
- Android application to prevent late appointments with Google GPS API

#### Capstone Design, Mar 2016 – Jun 2016

- Team Leader, Developer
- Data acquisition with ESP 8266(like Arduino) and thermometer sensor at public computer labs
- Data analysis for energy-efficient air conditioning rule