

# Jongyeol Yang

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## Work Experience

June 2010 - present, Research Engineer, LG Electronics

*Software Engineer, Deep Learning*

- Implemented sentiment classification using multi-modal data(face, motion, sound) extracted from video. Applied with CNN, DBN, Auto-encoder algorithm and implemented using torch.

*Software Engineer, Speech*

- Improved Keyword Spotting by 15%(80%→95%) in W2 smart watch by re-designing training data and adding verification modules.
- Trained DNN model using Kaldi and implemented verifying engine to classify Keyword and acoustic sound from surrounding sound.
- Improved text-to-speech quality which is dropping at high speech(MOS 2.9 → 3.2) by referencing HTS open source.
- Developed text-based sentiment classification using Naive Bayes's algorithm. Embedded in LG Qvoice that is used in most of the LG smart phones.
- Developed emotional text-to-speech. Embedded in LG Qvoice that is used in most of the LG smart phones.
- Shortened speech database labeling process from 1 month to 1 week by making bash script and removing duplicate module.
- Selected as a coding expert in LG Electronics group of 50 people.

Feb. 2010 - May 2012, Samsung Electronics

*Software Engineer, Speech*

- Developed Korean, English, Japanese, Italian text-to-speech. Embedded in Svoice and talkback that is used in most of the Samsung smart phone.
- Interviewed 100+ engineering candidates.

*Software Engineer, MANUFACTURING TECHNOLOGY CENTER*

- Improved manufacturing speed of HDD manufacturing automation system and implemented new module which is checking sound in automation QA system of smart phone.

## Personal Projects

- Analysis and cleaning big data using Hadoop, spark, and R

# Skills

## *Programming Languages*

- proficient: C, C++
  - Implemented text-to-speech engine using C which is normalize text and generate audio signal.  
Analyze and modify Kaldi open source and add new modules written in C++.
- intermediate: Bash, Python, Lua, Java, Perl
  - Read and modify text-to-speech android app source written in Java.
  - Wrote batch scripts using bash, and perl script.
  - Wrote Deep Learning scripts by using python(graphlab) and lua(torch).
  - Wrote many program which is converting data, normalizing text, analyzing speech data using python module such as regular expression, numpy, and pandas.

## *Experienced open source library*

- torch, Kaldi, HTS, hts\_engine API

## *Domain knowledge*

- Machine Learning, Deep Learning(CNN, RNN, LSTM), Speech Signal Processing, Hadoop, pyspark

## *VCS*

- Subversion, Git

## *Platforms*

- Linux, Android, Win32

## *Languages*

- Fluent in Korean
- Intermediate in English (ibt TOEFL: 72)

# Education

- M.S., Information and Technology, Gwangju Institute Science and Technology, 2010. GPA 4.1.
- B.S., Electronics Engineering, Inha University, 2008. GPA 3.9.

# Awards

- Won 1st place in a coding competition (2015, LG Electronics), and selected as a coding expert in LG.