Jongyeol Yang

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Work Experience

June 2016 - present, Research Engineer, NCSoft

Research Engineer, AI lab

- Build data-parallel distributed reinforcement learning system using Tensorflow framework(2 GPUs x 3 Servers).

June 2012 - June 2016, Research Engineer, LG Electronics

Software Engineer, Deep Learning

- Implemented action recognition using features extracted from video. Applied with CNN, LSTM algorithm and implemented using torch.
- Implemented unbalance detecting system for washing machine using temporal features from sensor signal(reduced 40s dehydrate time). Experiments were conducted through various DNN algorithm(ANN, CNN, LSTM) and implemented using torch framework.

Software Engineer, Speech

- Improved Keyword Spotting by 15%(80%->95%) in W2 smart watch by re-designig 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 Baye'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.

Software Engineer, MANUFACTURING TECHNOLOGY CENTER

- Improved manufacturing speed of HDD manufacturing automation system and implemented new module which is checing 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

- Tenworflor, torch, Kaldi, HTS, hts_engine API

Domain knowledge

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

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., Electronnics Engineering, Inha University, 2008. GPA 3.9.

Awards

- Won 1st place in a on-site coding competition (2015, LG Electronics), and selected as a coding expert in LG.
- Won 1st place in a online coding competition (2016, LG Electronics).