Soohwan Kim

AI RESEARCH ENGINEER

Profile

Current co-founder & A.I. engineer at TUNiB. Former A.I. engineer at Kakao Brain.

Employment History

Co-founder & AI Research Engineer, TUNiB

MARCH 2021 — PRESENT

- Research & development of AI that enables human-like conversation.
- Responsible for engineering in the team. (TPU, Big-model training etc.)

AI Research Engineer, Kakao Brain

NOVEMBER 2020 — FEBRUARY 2021

- Speech and natural language processing team.
- Research & development the latest NLP & Speech technologies.

Internships

Internship, Kakao Brain

AUGUST 2020 — OCTOBER 2020

- Speech and natural language processing team.
- Development of speech recognition model for English, Chinese, and Korean.

Internship, Auditory Intelligence Lab

APRIL 2020 — AUGUST 2020

- Dept. of Computer Science & Engineering Sogang University.
- Studied end-to-end speech recognition technologies.

Internship, Samsung Multi-Campus

JULY 2018 — AUGUST 2018

- Credit-linked short-term internship.
- Java-based algorithms for software development course.

Education

Bachelor of Engineering, Kwangwoon University

MARCH 2014 — FEBRUARY 2021

- **Major**: Electronic & Communication Engineering, **Minor**: Data Science
- **Major GPA**: 3.90/4.5, **Total GPA**: 3.67/4.5
- **Scholarship**:
    - Samsong Scholarship (2020)
    - Samsong Scholarship (2019)
    - Bima Scholarship - Competitive Scholarship (2019-1)
    - Bima Scholarship - Competitive Scholarship (2018-2)
    - Bima Scholarship - Competitive Scholarship (2018-1)
- **Honors**:
    - President's Award - 1st place (Kwangwoon Engineering Festival)
    - People's Choice Award (Kwangwoon Engineering Festival)
    - Outstanding Award (Multi-Campus)
    - People's Choice Award (Startup Idea Contest)

Details

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NATIONALITY

South Korean

DRIVING LICENSE

Class 2

DATE / PLACE OF BIRTH

1995.10.11
Cheonan City

Links

GitHub

Facebook

Tech Blog

Major/Minor Courses

Capstone-I, Capstone-II,
Machine Learning, Database,
AI and Speech Processing,
Operating System, Data Mining,
Data Structure and Algorithm,
Computer Architecture, Bigdata
Processing and Application,
IoT System Design, Network
Programming, Statistical
Application, Probability
and Irregular Signaling,
Computer Network, Digital
Signal Processing, System
Programming, Bigdata Language,
Data Communication, Object
Oriented Programming, Object
Oriented Programming Practice,
Signal and System, Open-source
Software, Mobile Programming,
Software Design, Digital Logic,
C Programming, Engineering
Math-I, Engineering Math-II,
Electronic Circuit-I, Electronic
Circuit-II, Basic Electronic Circuit
Experiment-I, Basic Electronic
Circuit Experiment-II, Electronic
Circuit Experiment-I, Electronic
Circuit Experiment-II, Electronic
Physics, Statistical Theory

Project Experience

Open-domain Dialog System, TUNiB

MARCH 2021 — PRESENT

- Development conversational AI who people emotionally engage with.
- Developing and experimenting with multiple concepts of chatbots.

Pororo, Kakao Brain

AUGUST 2020 — FEBRUARY 2021

- Platform Of neuRal mOdels for natuRal language prOcessing
- Easy to solve various subtasks in the NLP and Speech processing field.
- GitHub: https://github.com/kakaobrain/pororo

Multilingual Text-To-Speech, Kakao Brain

NOVEMBER 2020 — FEBRUARY 2021

- Development of Kakao Brain's TTS technology.
- Supports 11 languages, cross-lingual voice style transfer, code-switching.
- Demopage: https://pororo-tts.github.io/

Speech Recognition using Wav2vec 2.0, Kakao Brain

AUGUST 2020 — OCTOBER 2020

- Development of Kakao Brain's ASR technology. (English, Korean, and Chinese)
- Mount to 'pororo' speech recognition task.

KoSpeech, Kwangwoon Univ.

JANUARY 2020 — FEBRUARY 2021

- Modular & extensible end-to-end Korean ASR toolkit.
- Got hundreds of stars in GitHub.
- GitHub: https://github.com/sooftware/KoSpeech

Naver AI Hackathon - Speech, Naver

SEPTEMBER 2019 — OCTOBER 2019

- Automatic speech recognition competition held by Naver.
- Hackathon page: https://campaign.naver.com/aihackathon_speech/

Others

Military Service

SEPTEMBER 2015 — JUNE 2017

- Served and discharged from Republic of Korea Marine Corps.

Study

- A.I. Speech Paper Reading [link]
- NLP Paper Reading [link]

Teaching Assistant

- **Samsung AI Expert Course - Speech Recognition**, Auditory Intelligence Lab
- **Object-Oriented Programming Practice**, Kwangwoon University

Competition

- **3rd Ranked**, 2020 AI Grand Challenge - Speech Recognition Track (Advisor)
- **Finalist (12th Ranked)**, 2019 Naver AI Hackathon - Speech (Team Leader)

Publication

- **Open-Source Toolkit for E2E Korean Speech Recognition,** SIMPAC, Volume 7
- **KoSpeech [Technical Report]**, arXiv, 2009.03092

Skills

PyTorch

Fairseq

PyTorch-Lightning

Transformers

Lightning-Transformers

Accelerate

Parl-AI

Multi-GPU Training

Multi-Node Training

TPU Training

Git

Hydra

Python

Java

JavaScript

C

HTML

CSS

SQL

Shell Script

Android

Markdown

Numpy

Pandas

Google Cloud Platform

Codefactor