

# SANG HOON WOO

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## Education

### University of California, Davis

Davis, CA

*Bachelor of Science in Computer Science*

*Sep. 2015 – Jun. 2019*

- GPA: 3.68/4.0 (Major GPA: 3.91/4.0)
- Dean's Honor List: Spring 2017, Fall 2017, Winter 2018, Spring 2018, Fall 2018, Winter 2019, Spring 2019

## Experience

### Seoul National University Vision & Learning Lab

Seoul, South Korea

*Research Intern*

*Jan. 2025 – Current*

- Conducted research on spoken dialogue systems and general audio processing.
- Co-authored and submitted a research paper on adapting LLM responses for spoken dialogue systems.

### Mindlogic Inc.

Seoul, South Korea

*NLP Engineer*

*Sep. 2022 – Nov. 2023*

- Initiated and developed a prototype of a dialogue system with persona-grounding based on historical chat data, enhancing user personalization.
- Established and utilized LLM-based modules, including prompt engineering techniques, to deliver high-quality business chatbot solutions.

### MINDsLab Inc.

Seongnam, South Korea

*Senior AI Scientist*

*Jan. 2022 – Sep. 2022*

- Led the speech recognition research project, achieving a 68% relative error rate reduction compared to the previous internal model for Korean and English.
- Built and deployed a gRPC-based multilingual text-to-speech service compatible with the company's internal talking face generation system.
- Developed an internal grapheme-to-phoneme process for Japanese and Chinese, enabling the company to expand its text-to-speech service to new markets.

### AI Scientist

*Dec. 2020 – Jan. 2022*

- Built a text preprocessing pipeline, including web scraping and text cleaning, for language model pre-training.
- Initiated and developed a transformer-based speech recognition service, overseeing model prototyping, training, and evaluation.

## Selected Publications

*Think, Verbalize, then Speak: Bridging Complex Thoughts and Comprehensible Speech*

**Sang Hoon Woo\***, Sehun Lee\*, Kang-wook Kim, Gunhee Kim - *Under review at Empirical Methods in Natural Language Processing 2025*

*EnCLAP++: Analyzing the EnCLAP Framework for Optimizing Automated Audio Captioning Performance*

Jaeyeon Kim, Minjeong Jeon, Jaeyoon Jung, **Sang Hoon Woo**, Jinjoo Lee - *Detection and Classification of Acoustic Scenes and Events Workshop 2024*

*SANE-TTS: Stable And Natural End-to-End Multilingual Text-to-Speech*

Hyunjae Cho, Wonbin Jung, Junhyeok Lee, **Sang Hoon Woo** - *Proceedings of the Annual Conference of the International Speech Communication Association (2022)*

*Talking Face Generation with Multilingual TTS*

Hyoung-Kyu Song\*, **Sang Hoon Woo\***, Junhyeok Lee, Seungmin Yang, Hyunjae Cho, Youseong Lee, Dongho Choi, Kang-wook Kim - *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (2022 Demo)*

*Leveraging IoTs and Machine Learning for Patient Diagnosis and Ventilation Management in the Intensive Care Unit*

Gregory B Rehm, **Sang Hoon Woo**, Xin Luigi Chen, Brooks T Kuhn, Irene Cortes-Puch, Nicholas R Anderson, Jason Y Adams, Chen-Nee Chuah - *IEEE Pervasive Computing 19.3 (2020)*

## Skills

**Language:** English, Korean, Japanese

**Programming:** Python, Java, Kotlin, Swift, SQL

**Tools:** Git, Docker

**Frameworks/Libraries:** PyTorch, TensorFlow/Keras, gRPC, Flask, FastAPI, LangChain