Hongseok Oh

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Seasoned AI Research Engineer with over 3 years of hands-on experience in developing and deploying state-of-the-art deep learning models in the audio and speech domain for a startup. Leveraging a strong academic background in machine learning and statistics, I am now pursuing a Master's in Computer Science and Engineering at University of California, San Diego to thrive as an AI/ML engineer.

WORK EXPERIENCES

Deeply Inc. Nov. 2020 - Jul. 2023
AI Research Engineer Seoul, Republic of Korea

- Developed over 10 deep learning models with PyTorch, resulting in 3 service productions and 4 demo presentations
- Conducted 2 deep learning-based researches in speech and audio domain, leading to 1 academic paper under review

Deeply Inc. May 2020 - Oct. 2020
Data Scientist Intern Seoul, Republic of Korea

- Designed and executed data collection protocols for government-funded AI data construction projects [**Link 1, 2, 3**]
- Trained human nonverbal vocalization classifier and infant cry sentiment classifier [**Link**] with TensorFlow

EDUCATION

University of California, San Diego Sep. 2023 - Jun. 2025 (Expected)
Master of Science in Computer Science and Engineering San Diego, CA, United States

- Specialized in Artificial Intelligence

University of California, San Diego Dec. 2018 - Jun. 2019
Education Abroad Reciprocal Exchange Program San Diego, CA, United States

- GPA: 3.57/4.0

Yonsei University Mar. 2014 - Feb. 2022
Bachelor of Science in Information and Industrial Engineering Seoul, Republic of Korea

- GPA: 3.66(4.0†)/4.3 († Last 2 Years GPA)

SELECTED PROJECTS

Audio Domain Adaptation Through Microphone Conversion Oct. 2022 - Jul. 2023

- **Technologies**: CycleGAN, data augmentation, Python, PyTorch
- **Description**: Built a generative model simulating microphones' properties without modifying acoustic information
- **Impact:** Outperformed previous SoTA methods by 5.1 - 11.4% increase in F1 score, enhancing model robustness

Respiratory Sound Classification for Elderly Monitoring System [Link] Nov. 2021 - Mar. 2023

- **Technologies**: Pre-trained network, knowledge distillation, Python, PyTorch
- **Description**: Developed a sound event classifier with a pre-trained Transformer for elderly health monitoring
- **Impact**: Boosted inference speed by 80% via knowledge distillation, aiding real-time monitoring for 300+ elders

SKILLS

Technical
- Python
  - Deep learning framework: PyTorch, TensorFlow, Keras
  - Digital signal processing & Image processing: Torchaudio, Torchvision, Librosa
- Bash, Git, SQL, GCP

Language
- Korean: Native
- English: Full Professional Proficiency
- Spanish: Limited Working Proficiency