# Jiu FENG

**Google Scholar** 

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GitHub

Personal Homepage



Sept. 2018 - Jun. 2022

#### **Education**

KAIST

Daejeon, South Korea

M.S. in Electrical Engineering. GPA:4.3/4.3 (So far)

Sept. 2022 - Jun. 2024

Supervisor: Prof. Joon Son Chung

Sichuan University(SCU) Chengdu, China

B.Eng. in Software Engineering. **GPA: 3.92/4.0, Ranking: 3/215 (Top 1.4%)** Member of Wu YuZhang Honors College. Supervisor: Prof. Qijun Zhao

**Experiences** 

KAIST. Multimodal AI Lab.

Daejeon, South Korea

Research Assistant. Lab leader: Prof. Joon Son Chung Aug. 2022 - Present

KAIST. Robotics and Computer Vision (RCV) Lab.

Research Intern. Lab leader: Prof. In So Kweon

Daejeon, South Korea
Nov. 2021 - Apr. 2022

### **Publications**

#### During the Master's Program (Sept. 2022 - Present):

Preparing to submit papers for ICASSP 2024 this summer. To be updated...

#### FlexiAST: Flexibility is What AST Needs.

Jiu Feng\*, Mehmet Hamza Erol\*, Joon Son Chung, Arda Senocak.

INTERSPEECH 2023 Poster [Link]

Abstract: The objective of this work is to give patch-size flexibility to Audio Spectrogram Transformers (AST). Recent advancements in ASTs have shown superior performance in various audio-based tasks. However, the performance of standard ASTs degrades drastically when evaluated using different patch sizes from that used during training. As a result, AST models are typically re-trained to accommodate changes in patch sizes. To overcome this limitation, this paper proposes a training procedure to provide flexibility to standard AST models without architectural changes, allowing them to work with various patch sizes at the inference stage - FlexiAST. This proposed training approach simply utilizes random patch size selection and resizing of patch and positional embedding weights. Our experiments show that FlexiAST gives similar performance to standard AST models while maintaining its evaluation ability at various patch sizes on different datasets for audio classification tasks.

#### During Internship (Nov. 2021 - Apr. 2022):

#### Decoupled adversarial contrastive learning for self-supervised adversarial robustness.

Zhang, Chaoning\*, Kang Zhang\*, Chenshuang Zhang, Axi Niu, **Jiu Feng**, Chang D. Yoo, and In So Kweon. ECCV 2022 **Oral** 

Noise augmentation is all you need for FGSM fast adversarial training: Catastrophic overfitting and robust overfitting require different augmentation.

Zhang, Chaoning\*, Kang Zhang\*, Axi Niu, Chenshuang Zhang, **Jiu Feng**, Chang D. Yoo, and In So Kweon. arXiv e-prints (2022)

## Awards & Scholarships

KAIST Full Scholarship for M.S. Students	2022
Provincial Outstanding Graduates (Top 3% in Sichuan Province)	2022
National Scholarship (Top 1% in SCU, Top 0.2% in China)	2021
Special Award of Wang Wen Guo Scholarship (5 Winners in Honors College)	2021
First-class Scholarship of Sichuan University (Top 2% in SCU)	2021
National Encouragement Scholarship (Awarded for two years)	2019, 2020

### **Skills**

**Languages** Chinese: Native, English: Fluent.

**Coding** Python, Pytorch, Java, C, SQL, HTML, CSS, JavaScript, MATLAB.

Misc. Photography, Basic Video Clip, Chinese Calligraphy, Sports.

# Other Experiences

Outstanding Graduate Leader of SCU in 2022

**First Prize** for University Group in the Asia and Pacific Mathematical Contest in Modeling (APMCM) in 2021 **Meritorious Winner** in Interdisciplinary Contest In Modeling (ICM) in 2021

Gold Medal in International Genetically Engineered Machine Competition (IGEM) in 2021

**National Second Prize** in "Higher Education Cup" Contemporary Undergraduate Mathematical Contest in Modeling (CUMCM) in 2019

Leader of a National College Students' Innovation and Entrepreneurship Training Program (with \$1450 Project Funding) in 2019

Excellent Student of SCU in 2019