# Yen-Tung (Arthur) Yeh

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#### **EDUCATION**

#### National Taiwan University, Taiwan

Ph.D. in Graduate Institute of Communication Engineering

National Taiwan University, Taiwan

M.S. in Graduate Institute of Communication Engineering

National Taiwan University, Taiwan

B.S. in Computer Science and Information Engineering

Taipei, Taiwan Sep. 2017 - Aug. 2022

Feb. 2024 - Dec. 2024

Taipei, Taiwan

Feb. 2025 - Now

Taipei, Taiwan

Publications

Google Scholar ID: nTaffy0AAAAJ

## **Conference Papers**

Yen-Tung Yeh, Yu-Hua Chen, Yuan-Chiao Cheng, and Jui-Te Wu, Jun-Jie Fu, Yi-Fan Yeh, Yi-Hsuan Yang. "DDSP Guitar Amp: Interpretable Guitar Amplifier Modeling." (ICASSP-25), (Oral Presentation), (paper, demo, slide, poster)

Yu-Hua Chen, <u>Yen-Tung Yeh</u>, Yuan-Chiao Cheng, Jui-Te Wu, Yu-Hsiang Ho, Jyh-Shing Roger Jang, and Yi-Hsuan Yang. "Towards Zero-Shot Amplifier Modeling: One-to-Many Amplifier Modeling via Tone Embedding Control." in Proceedings of the 25th International Society for Music Information Retrieval Conference (**ISMIR-24**), San Francisco, CA, USA, 2024 (paper, <u>demo</u>)

Yen-Tung Yeh, Wen-Yi Hsiao, and Yi-Hsuan Yang. "Hyper Recurrent Neural Network: Condition Mechanisms for Black-box Audio Effect Modeling." in 27th International Conference on Digital Audio Effects (**DAFx-24**), (Oral Presentation) (paper, <u>code</u>, poster)

Yen-Tung Yeh, Bo-Yu Chen and Yi-Hsuan Yang. "Exploiting Pre-Trained Feature Networks for Generative Adversarial Networks in Audio-Domain Loop Generation" in Proceedings of the 23rd International Society for Music Information Retrieval Conference (ISMIR-22), India, Bengaluru, 2022 (paper, code)

Tun-Min Hung, Bo-Yu Chen, <u>Yen-Tung Yeh</u>, and Yi-Hsuan Yang. "A Benchmarking Initiative for Audio-Domain Music Generation Using the Freesound Loop Dataset" in Proceedings of the 22nd International Society for Music Information Retrieval Conference (ISMIR-21), Virtual, 2021 (paper, <u>code</u>)

#### Workshop Papers & Late-Breaking Demos

Yi-Lin Jiang, Chia-Ho Hsiung, <u>Yen-Tung Yeh</u>, Lu-Rong Chen, Bo-Yu Chen. "AI TrackMate: Finally, Someone Who Will Give Your Music More Than Just 'Sounds Great!" NeurIPS 2024 Creativity AI Track (paper, <u>demo</u>)

Yen-Tung Yeh, Wen-Yi Hsiao, and Yi-Hsuan Yang. "PyNeuralFx: A Python Package for Neural Audio Effect Modeling." (ISMIR LBD 2024) (paper, code, poster)

Yu-Hua Chen, Yuan-Chiao Cheng, <u>Yen-Tung Yeh</u>, Jui-Te Wu, Yu-Hsiang Ho, Jyh-Shing Roger Jang, and Yi-Hsuan Yang. "Demo of Zero-Shot Guitar Amplifier Modelling: Enhancing Modeling with Hyper Neural Networks." (**ISMIR LBD 2024**) (paper)

### Under Review

Yu-Hua Chen, Yuan-Chiao Cheng, <u>Yen-Tung Yeh</u>, Jui-Te Wu, Jyh-Shing Roger Jang, Yi-Hsuan Yang. "Towards Generalizability to Tone and Content Variations in the Transcription of Amplifier Rendered Electric Guitar Audio" Under Review (paper, <u>demo</u>)

# Professional Experience

Deep Learning Audio Intern  Positive Grid	-	2025 – Now aipei, Taiwan
• Research topic: Unified Framework for Guitar Synthesis		
Research intern Sony AI	•	– Dec. 2024 Tokyo, Japan
<ul> <li>Advisor: Junghyun (Tony) Koo</li> <li>Research topic: Mixing Representation Learning</li> </ul>	-	iongo, supun
Deep Learning Audio Intern	Mar 2024	– Sep. 2024
Positive Grid		ipei, Taiwan
• Research topic: DDSP-based Neural Amplifier Modeling	10	upes, rasaan
Research Scientist/Engineering Collaborator	Oct. 2023	– Sep. 2024
Rhythm Culture Corporation, Taipei Music Center  • Project leader: Bo-Yu Chen, Lu-Rong Chen		iipei, Taiwan
• Research topic: LLM-based Music Production Understanding		
Research Assistant	Aug. 2023	– Jan. 2024
Music and AI Lab, National Taiwan University  • Advisor: Yi-Hsuan Yang	To	nipei, Taiwan
• Research topic: Neural Audio Effect Modeling		<b>N</b> 0000
Research Assistant	_	- Mar.2023
Research Center for IT Innovation, Academia Sinica  • Advisor: Yi-Hsuan Yang	16	nipei, Taiwan
• Research topic: Neural Audio Effect Modeling		
Selected Honors & Awards		
NSTC Graduate Research Fellowship (\$48000) • National Science and Technology Council		2024-2027
Telecom Industry Excellence Fellowship (\$80000)  • Graduate Institute of Communication Engineering, National Taiwan University		2024-2028
Invited Talks		
Electric Guitar Tone Research in Audio Effect and Machine Learning • Invited talk @ Music and Audio Research Group (MARG) at Seoul National University	Slides	Sep. 2024
Professional Services		
Conference Reviewer • ICASSP (2025), IJCNN (2025), ISMIR (2025)		
Projects		
<ul> <li>Suhr Riot Pedal Plugin   Audio Plugin</li> <li>Using neural network to emulate the Suhr Riot Pedal</li> <li>Translating the neural network model to C++ with JUCE</li> </ul>	Nov. 2023	– Dec. 2023
<ul> <li>DDSP-Piano Pytorch   Paper Reimplementation</li> <li>Reimplemented the DDSP-Piano model via the PyTorch framework</li> <li>Open source on the following Github-link</li> </ul>	Sep. 2022	– Oct. 2022
<ul> <li>Unsupervised Automatic Mixing   Prototypes</li> <li>Using GAN-based approach to automix four tracks</li> <li>Using source separation as the discriminator to enhance the mixture quality</li> </ul>	Sep. 2021	– Dec. 2021
Technical Skills		

Programming Languages: Python, C/C++ Frameworks: Pytorch