Yen-Tung (Arthur) Yeh

+886-978-222-892 | <u>Email</u> | <u>Personal Website</u> | <u>GitHub</u> | Google Scholar

EDUCATION

National Taiwan University, Taiwan — Taipei, Taiwan
Ph.D. in Graduate Institute of Communication Engineering — *Feb. 2025 - Now*

National Taiwan University, Taiwan — Taipei, Taiwan
M.S. in Graduate Institute of Communication Engineering — *Feb. 2024 - Dec. 2024*

National Taiwan University, Taiwan — Taipei, Taiwan
B.S. in Computer Science and Information Engineering — *Sep. 2017 - Aug. 2022*

PUBLICATIONS

Google Scholar ID: <u>nTaffy0AAAAJ</u>

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), (<u>paper</u>, <u>demo</u>, <u>slides</u>, <u>poster</u>)

Yu-Hua Chen, **Yen-Tung Yeh**, 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 (<u>paper</u>, <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) (<u>paper</u>, <u>code</u>, <u>poster</u>)

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 (<u>paper</u>, <u>code</u>)

Tun-Min Hung, Bo-Yu Chen, **Yen-Tung Yeh**, 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 (<u>paper</u>, <u>code</u>)

Workshop Papers & Late-Breaking Demos

Yi-Lin Jiang, Chia-Ho Hsiung, **Yen-Tung Yeh**, 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** (<u>paper</u>, <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**) (<u>paper</u>, <u>code</u>, <u>poster</u>)

Yu-Hua Chen, Yuan-Chiao Cheng, **Yen-Tung Yeh**, 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**) (<u>paper</u>)

Under Review

Yu-Hua Chen, Yuan-Chiao Cheng, **Yen-Tung Yeh**, 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** (<u>paper</u>, <u>demo</u>)

Professional Experience

Deep Learning Audio Intern April. 2025 – Now
Positive Grid *Taipei, Taiwan*
- Research topic: Unified Framework for Guitar Tone Transfer

Research intern Sep. 2024 – Dec. 2024
Sony AI *Tokyo, Japan*
- Advisor: Junghyun (Tony) Koo
- Research topic: Mixing Representation Learning

Deep Learning Audio Intern Mar. 2024 – Sep. 2024
Positive Grid *Taipei, Taiwan*
- Research topic: DDSP-based Neural Amplifier Modeling

Research Scientist/Engineering Collaborator Oct. 2023 – Sep. 2024
Rhythm Culture Corporation, Taipei Music Center *Taipei, Taiwan*
- Project leader: Bo-Yu Chen, Lu-Rong Chen
- Research topic: LLM-based Music Production Understanding

Research Assistant Aug. 2023 – Jan. 2024
Music and AI Lab, National Taiwan University *Taipei, Taiwan*
- Advisor: Yi-Hsuan Yang
- Research topic: Neural Audio Effect Modeling

Research Assistant Aug. 2022 - Mar.2023
Research Center for IT Innovation, Academia Sinica *Taipei, Taiwan*
- Advisor: Yi-Hsuan Yang
- Research topic: Neural Audio Effect Modeling

Selected Honors & Awards

NSTC Graduate Research Fellowship ($48000) 2024-2027
- National Science and Technology Council

Telecom Industry Excellence Fellowship ($80000) 2024-2028
- Graduate Institute of Communication Engineering, National Taiwan University

Invited Talks

Electric Guitar Tone Research in Audio Effect and Machine Learning Sep. 2024
- Invited talk @ Music and Audio Research Group (MARG) at Seoul National University | Slides

Professional Services

Conference Reviewer
- ICASSP (2025), IJCNN (2025), ISMIR (2025)

Projects

Suhr Riot Pedal Plugin | *Audio Plugin* Nov. 2023 – Dec. 2023
- Using neural network to emulate the Suhr Riot Pedal
- Translating the neural network model to C++ with JUCE

DDSP-Piano Pytorch | *Paper Reimplementation* Sep. 2022 – Oct. 2022
- Reimplemented the DDSP-Piano model via the PyTorch framework
- Open source on the following Github-link

Unsupervised Automatic Mixing | *Prototypes* Sep. 2021 – Dec. 2021
- Using GAN-based approach to automix four tracks
- Using source separation as the discriminator to enhance the mixture quality

Technical Skills

Languages: Mandarin(native), English
Programming Languages: Python, C/C++
Frameworks: Pytorch