

Xinhao Mei

Curriculum Vitae

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📄 Personal Webpage
🐙 Github in LinkedIn

Education

- 2021–present **PhD in Vision, Speech and Signal Processing**, *University of Surrey*, Guildford, UK.
Supervisor: Prof. Wenwu Wang
- 2019–2020 : **Master of Science in Computer Vision, Machine Learning and Robotics**, *University of Surrey*, Guildford, UK.
Overall GPA: 70.0/100.0 (Distinction)
- 2015–2019 : **Bachelor of Engineering in Software Engineering**, *Southwest Petroleum University*, Chengdu, China.
Overall GPA: 82.0/100.0

Publications

- 2022 **Xinhao Mei**, Xubo Liu, Jianyuan Sun, Mark D Plumbley, and Wenwu Wang. On Metric Learning for Audio-Text Cross-Modal Retrieval. In *INTERSPEECH*. ISCA, 2022.
- 2022 **Xinhao Mei**, Xubo Liu, Jianyuan Sun, Mark D Plumbley, and Wenwu Wang. Diverse Audio Captioning via Adversarial Training. In *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*. IEEE, 2022.
- 2022 **Xinhao Mei**, Xubo Liu, Mark D Plumbley, and Wenwu Wang. Automated Audio Captioning: an Overview of Recent Progress and New Challenges. *arXiv preprint arXiv:2205.05949*, 2022.
- 2021 **Xinhao Mei**, Xubo Liu, Qiushi Huang, Mark D Plumbley, and Wenwu Wang. Audio Captioning Transformer. In *Proceedings of the Detection and Classification of Acoustic Scenes and Events Workshop*, 2021.
- 2021 **Xinhao Mei**, Qiushi Huang, Xubo Liu, Gengyun Chen, Jingqian Wu, Yusong Wu, et al. An Encoder-Decoder based Audio Captioning System with Transfer and Reinforcement Learning. In *Proceedings of the Detection and Classification of Acoustic Scenes and Events Workshop*, 2021.

Research Experience

- 2021–present **Automated Audio Captioning**.
Developing novel algorithms and models to improve the performance of audio captioning system. Proposed models achieved state-of-the-art performance
- 2019–2020 **Deep Learning for Large-Scale Speaker Verification in the Wild**.
Developed a speaker verification system in noisy and uncontrolled environment using deep learning techniques. Analyzed traditional and state-of-the-art approaches in speaker recognition and verification, and combined these methods in the system to improve the performance

Honors

- 2022 Achieved **2nd** place in **Task 6b of DCASE Challenge 2022 (Language-Based Audio Retrieval)**.
- 2022 Achieved **3rd** place in **Task 6a of DCASE Challenge 2022 (Automated Audio Captioning)**.
- 2022 Awarded a University of Surrey-Santander PhD Travel Award (£1200).
- 2021 Achieved **3rd** place in **Task 6 of DCASE Challenge 2021 (Automated Audio Captioning)**.
- 2019 Surrey International Masters Scholarship (£5000).

Teaching Assistantship

- Spring, 2022 : **COM2028: Artificial Intelligence**, University of Surrey.
- Spring, 2022 : **COM3025: Deep Learning and Advanced AI**, University of Surrey.
- Fall, 2021 : **EEE2036: Laboratories, Design & Professional Studies III**, University of Surrey.
- Fall, 2021 : **EEE1033: Computer and Digital Logic**, University of Surrey.

Skills

Programming Python, PyTorch, Matlab, Numpy
Typesetting Markdown, LaTeX
Languages Chinese(native), English(fluent)