

Langchu Huang

📍 SUSTech ✉ 12213009@mail.sustech.edu.cn 🌐 naivecynics 🏠 Homepage

Education

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- Georgia Institute of Technology (Georgia Tech)** Aug. 2026 – May 2028
(expected)
M.S. in Music Technology, School of Music, College of Design
 ◦ Advisor: Prof. Alexander Lerch
- Southern University of Science and Technology (SUSTech)** Sept. 2022 – Aug. 2026
(expected)
B.E. in Computer Science and Technology, College of Engineering
 ◦ GPA: 3.8 / 4.0 (91 / 100)
 ◦ Advisor: Prof. Yang Xu
 ◦ Coursework: AI (A-), ML (A), DL (A-), NLP (A+)
 ◦ Research Interests: Music Information Retrieval, Natural Language Processing, Symbolic Music
- Hong Kong University of Science and Technology (HKUST)** Sept. 2025 – Dec. 2025
Non-degree Exchange Program, School of Engineering
 ◦ Elective coursework in music theory and composition

Experience

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- Undergraduate Research** *Southern University of Science and Technology* Sept. 2024 – Dec. 2024
 Investigated how paralinguistic signals in dialogue corpora influence the representation learning and downstream task performance of fine-tuned language models.
- Research Assistant** *North Carolina State University* Jul. 2025 – Aug. 2025
 Conducted research in the ARoS Lab under Prof. Edgar Lobaton. Designed a data collection protocol and built a dual-modal cough-speech dataset using both air and bone conduction microphones. Developed a dual-path contrastive learning architecture for robust cough-speech detection. [🔗](#)
- Visiting Research Student** *Hong Kong University of Science and Technology* Aug. 2025 – Nov. 2025
 Addressing long-context challenges in multitrack symbolic music modeling by developing a multitrack symbolic music tokenizer, aiming to design compact discrete representations that enhance language models' ability for symbolic music understanding and generation. The work explores residual vector quantization, interleaved ABC notation, and multimodal alignment for controllable, musically coherent outputs.
- Research Intern** *Lyra Lab, Tencent Music Entertainment* Nov. 2025 – May 2026
 ◦ Developed *LyricMidi*, a lyric-aware symbolic music foundation model with attribute-wise masked pretraining and hybrid music-language embeddings, improving vocal-centric understanding while maintaining strong performance on symbolic music classification benchmarks.
 ◦ Developed symbolic accompaniment generation systems that transform lead sheets into full piano arrangements and guitar tablature.
 ◦ Pretrained a unified symbolic music foundation model across performance / score MIDI and ABC notation to support cross-modal downstream tasks such as transcription, PM2S, and conditional generation.
 ◦ Developed an end-to-end generative PM2S system for translating performance MIDI into sheet music.

Publications

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- Investigating the Representation of Backchannels and Fillers in Fine-tuned Language Models** [🔗](#) 2026
ACL Main Conference
 Yu Wang, Leyi Lao, **Langchu Huang**, Gabriel Skantze, Yang Xu, Hendrik Buschmeier
 This work investigates how fine-tuning strategies enhance language models' ability to represent and generate backchannels and fillers in dialogue. Empirical analyses demonstrate improved clustering quality and more human-like language generation, showcasing the potential for adapting general LMs into pragmatic-aware conversational models.

LyricMidi: Joint Music–Language Pretraining for Symbolic Music Understanding

2025

Langchu Huang, Yiliang Jiang, Ying Chen, Lincheng Kong, Weifeng Zhao

This paper proposes a unified music–language pretraining framework that jointly models symbolic music events and lyrics. The model achieves consistent improvements on vocal-centric symbolic music understanding tasks while preserving general music representation performance.

Awards

- **Academic Scholarship**, SUSTech 2022, 2023, 2024
- **Outstanding Graduate**, SUSTech 2026
- **First Prize**, 7th National Student Art Exhibition, China 2023
- **Second Prize**, Chamber Music (Non-Major Division), 3rd GBA College Student Art Festival 2024

Technologies

TOEFL (MyBest): 100 (R 25, L 27, S 23, W 25) **GRE:** 317 (V 152, Q 165)

Human Languages: Cantonese (Native); Mandarin; English

Programming Languages: Python; LaTeX; C++; TypeScript; Lua

Music Skills: Piano; Chamber Music Performance; Music Theory and Notation

Portfolio

SVSmate, a VS Code extension for SUSTechers [↗](#)

- Designed and implemented an extension to integrate school academic services into developers' workflow.

Chamber Music Performance, Gustav Mahler: Piano Quartet in a Minor [↗](#)

- Chamber music performance as pianist in Gustav Mahler's *Piano Quartet in A Minor*.

Leadership & Service

- **President**, MovieSalon Club, SUSTech Jul. 2022 – Jul. 2024
- **President**, Camerata Coffee Club, SUSTech Jul. 2022 – Jul. 2023
- **Lianping Teaching Support Program**, delivered lessons on music and basic acoustics Jul. 2023
- **Volunteer Guide and Interpreter**, University of San Francisco Shenzhen Summer Program Jun. 2025
- **Piano and Music Theory Tutoring**, provided private instruction for children 2023 – 2025