

Lejun Min

Researcher, Artist

aik2mlj@gmail.com | aik2.site

EDUCATION

Center for Computer Research in Music and Acoustics (CCMRA), Stanford Sept. 2024 - Present
Master of Art in Music, Science, and Technology (Fellowship) California, United States

- Ongoing courses: [Audio Signal Processing](#), [Music, Computing, Design](#), [Human-Centered LLMs](#).
- Advisor: Prof. Julius O. Smith, Prof. Takako Fujioka.

Zhiyuan College, Shanghai Jiao Tong University Sept. 2019 – June 2023
Bachelor of Engineering in Computer Science (Fellowship) Shanghai, China

- Member of **ACM Honor Class**, an elite CS program for **top 5%** talented students.
- GPA: 88.5 / 100 (**top 10 student**).

PUBLICATIONS

Xingwei Qu, Yuelin Bai, Yinghao Ma, Ziya Zhou, Ka Man Lo, Jiaheng Liu, Ruibin Yuan, **Lejun Min**, Xueling Liu, Tianyu Zhang, Xinrun Du, Shuyue Guo, Yiming Liang, Yizhi Li, Shangda Wu, Junting Zhou, Tianyu Zheng, Ziyang Ma, Fengze Han, Wei Xue, Gus Xia, Emmanouil Benetos, Xiang Yue, Chenghua Lin, Xu Tan, Stephen W. Huang, Wenhui Chen, Jie Fu, Ge Zhang, “MuPT: A Generative Symbolic Music Pretrained Transformer”, submitted to *Proc. 13th International Conference on Learning Representations (ICLR 2025)*. [[arXiv](#)] [[Demo](#)]

Ziyu Wang, **Lejun Min**, Gus Xia, “Whole-song Hierarchical Generation of Symbolic Music Using Cascaded Diffusion Models”, **Spotlight (top 5%)** in *Proc. 12th International Conference on Learning Representations (ICLR 2024)*, Vienna, May 2024. [[arXiv](#)] [[OpenReview](#)] [[Demo](#)]

Lejun Min, Junyan Jiang, Gus Xia, Jingwei Zhao, “Polyffusion: A Diffusion Model for Polyphonic Score Generation with Internal and External Controls”, in *Proc. 24th International Society for Music Information Retrieval Conference (ISMIR 2023)*, Milan, November 2023. [[arXiv](#)] [[Poster](#)] [[Demo](#)]

ACADEMIC EXPERIENCE

Hierarchical Generation and Performance Rendering of Symbolic Music Sept. 2023 - Feb. 2024
Research Assistant at Music X Lab, MBZUAI Abu Dhabi, United Arab Emirates

- Designed and implemented comprehensive experiments for the hierarchical generation of symbolic music, with a cascaded diffusion model as backend.
- Experimented on performance rendering for symbolic music using Transformer architecture.
- Advisor: Prof. Gus Xia.

Controllable Symbolic Music Generation with Diffusion Models June 2022 – Dec. 2022
Research Assistant at Music X Lab, MBZUAI Abu Dhabi, United Arab Emirates

- Achieved state-of-the-art polyphonic music generation using diffusion models.
- Devised two control paradigms for music generation in the diffusion model framework: internal control via masked generation, and external control via cross-attention mechanism.
- Advisor: Prof. Gus Xia.

Deep Learning on Piano Reduction and Orchestration Jan. 2022 – May 2023
Researcher at Music X Lab, New York University, Shanghai Shanghai, China

- Projected piano and orchestral scores to a joint latent space with variational autoencoders.
- Applied contrastive learning on the latent space with end-to-end autoencoder training.
- Advisor: Prof. Gus Xia.

TEACHING

Reinforcement Learning (CS3316)

Spring 2023

Teaching Assistant at SJTU

Shanghai, China

- Designed the final project involving single- or multi-agent learning for simulated hands and legged robot.
- Lecturer: Prof. Weinan Zhang.

Design and Analysis of Algorithms (AI2615)

Spring 2022

Teaching Assistant at SJTU

Shanghai, China

- Prepared well-written lecture notes and answers for assignments.
- Lecturer: Prof. Chihao Zhang.

Principle and Practice of Computer Algorithms (CS1952)

Summer 2021

Teaching Assistant at SJTU

Shanghai, China

- Designed a comprehensive ray tracing tutorial written in the Rust language. The [repository](#) received 100+ stars on GitHub.
- Supervisor: Prof. Yong Yu.

LANGUAGE PROFICIENCY

Mandarin Chinese (native), English (fluent), French (beginner)

TOEFL: 112 (Reading 30, Listening 30, Speaking 24, Writing 28)

GRE: Verbal 162, Quantitative 170, Writing 4.0

SKILLS

Computer Science Skills

- C, C++, Python, Java, Rust, Verilog, Git.
- Proficient in machine learning coding, strategies and frameworks.
- Hands-on research experience with music information retrieval and music generation.
- Experienced in designing compilers, architecture, and computer systems.
- Well-trained on computer graphics development and image processing.
- Linux and open-source software enthusiastic.
- Experienced in Unity game development and JUCE audio plugin development.

Musical Abilities

- [Chuck](#) (music programming language) developer.
- Guzheng (Chinese zither) Performance Level 10 (the highest nonprofessional level in China) qualified.
- Piano Performance Level 10 qualified.
- Singing Performance Level 6 qualified.
- Part-time music producer. Published an electronic music piece under Chinese Electronic Music (CEM) Records, one of the most prestigious electronic music labels in China.

Artistic Capacities

- Trained on pencil sketching and pastel painting.
- Well-versed in world literature. Amateur writer.
- Experienced in 3D modeling using Blender.