

Pedro Ramoneda

Researcher, Pianist and Engineer.

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📍 Barcelona - Spain

🎓 Google Scholar

🐙 GitHub

👤 LinkedIn

My PhD focuses on modeling piano performance difficulty from multiple modalities using pedagogically grounded representations, under the supervision of Prof. Xavier Serra. I apply sequence modeling techniques inspired by NLP to music data, and have created datasets for piano difficulty integrated into [mirdata](#), where I am a core contributor. I emphasize reproducibility, sharing [demos](#) and code with my publications. This modeling of difficulty also supports the structuring of large music collections and the development of generative models that create personalized sheet music for students. My broader research interests include multimodal and explainable ML, generative modeling, and human-centered AI. More at [my website](#).

Experience

Early Stage Researcher and Teacher Assistant

Music Technology Group - Universitat Pompeu Fabra

📅 2021 – Currently 📍 Barcelona, Spain

Research Internship - Music Generation for Education

Yamaha R&D

📅 Jan 2025 – March 2025 📍 Yokohama, Japan

Research Internship - Automatic Music Generation

Sony CSL - Tokyo

📅 Jun 2023 – Sept 2023 📍 Remote

Research Internship - [mirdata](#)'s dev & [Repovizz](#) data curator

Music Technology Group - Universitat Pompeu Fabra

📅 2020 – 2021 📍 Barcelona, Spain

Piano teacher

High school: "El Salvador"

📅 2014 – 2016 📍 Zaragoza, Spain

Selection of Papers

🎓 Full list of publications on [Google Scholar](#)

Ramoneda, P., Lee, M., Jeong, D., Valero-Mas, J.J., & Serra, X. *Can Audio Reveal Music Performance Difficulty? Insights from the Piano Syllabus Dataset*. IEEE TASLP (2025).

Alonso, P., **Ramoneda, P.**, Araz, R.O., Poltronieri, A., & Bogdanov, D. *OMAR-RQ: Open Music Audio Representation Model Trained with Multi-Feature Masked Token Prediction*. ACM MM, (2025).

Ramoneda, P., Rocamora, M., & Akama, T. *Music Proofreading with RefinPaint: Where and How to Modify Compositions given Context*. In Proceedings of ISMIR, (2024).

Ramoneda, P., Suzuki, M., Maezawa, A., & Serra, X. *Difficulty-Aware Score Generation for Piano Sight-Reading*. Under review (2025).

Ramoneda, P., Jeong, D., Nakamura, E., Serra, X., & Miron, M. *Automatic Piano Fingering from Partially Annotated Scores using Autoregressive Neural Networks*. In Proceedings of ACM MM, (2022).

Ramoneda, P., Valero-Mas, J.J., Jeong, D., & Serra, X. *Predicting performance difficulty from piano sheet music images*. In Proceedings of ISMIR, (2023).

Ramoneda, P., Tamer, N.C., Eremenko, V., Miron, M., & Serra, X. *Score difficulty analysis for piano performance education*. In Proceedings of ICASSP, (2022).

Education

PhD in Information technology

Universitat Pompeu Fabra

📅 2021 – ongoing

Master in Sound and Music Technology

Universitat Pompeu Fabra

📅 2020 – 2021

BSc Computer Science Engineering

Universidad de Zaragoza

📅 2015–2020

BMus Piano Performance, (Paused)

CSMA

📅 2016–2018

Professional Degree Piano Performance

CPMZ

📅 2009–2015

Languages

Spanish

English

Portuguese

Catalan



Skills

Python

C/C++

JS

Machine Learning

Deep Learning

DSP

Embedded Systems

Recording Techniques

Music analysis

Music Performance

Music Information Retrieval

A usual work-journey

