Emmanouil Karystinaios



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SKILLS

- Programming Languages: Python, Pytorch, C. Git
- Maintenance : Skilled in CI/CD practices ensuring continuous integration, testing, and deployment across projects
- Software & Tools : MaxMSP, Reaper, Ableton, Inkscape, MuseScore
- Music Instruments : Guitar, Trumpet & Piano
- Music Production: Skilled in DSP techniques and audio mixing, with experience producing original music pieces.
- Teaching and Mentorship: Experienced lecturer; supervised many students and in-
- Research Methodology: Published 15+ papers in top-tier conferences in last 3 years.
- Team Managment : Collaborated in interdisciplinary teams to develop deeplearning models and software for music.
- Project Development : Led complex projects, currently involved on multimillion project calls.
- Transdisciplinarity: Higher knowledge and degrees from three domains, music, mathematics, and computer science.
- Efficiency and Attention to Detail: Dedicated to efficiency and precision, with a meticulous approach to research, publication, and code quality.
- Adaptability: Worked and lived in 3 countries speaking fluently 4 languages

LANGUAGE SKILLS

- French
- English
- Greek

AI Researcher — Music & Audio

Profile

Emmanouil Karystinaios obtained his Ph.D. in artificial intelligence at the Computational Perception Institute of Johannes Kepler University. His research focuses on Graph Neural Networks, Computational Musicology and Music Information Retrieval. Currently, he is working on Automatic Analysis of Symbolic Music using Graph Neural Networks (GNNs) and Generative Audio/Music Models for Music Therapy.

Professional Experience

JOHANNES KEPLER UNIVERSITY

2020 - PRESENT

Conducted Research on Music Information Retrieval and produced over 15 publications in high-ranking conferences over the past 3 years.

University of Music and Performing Arts Vienna 2022 - 2023Teaching position as Lecturer on the topic of Music and Sound Computing.

University of Fine Arts Linz

2021 - 2023

2019 - 2020

Teaching position as Lecturer on the topic of Music and Sound Computing.

Telecom Paris

(Internship) Musical style classification with deep learning.

STRASBOURG INSTITUTE FOR ADVANCED MATHEMATICS (Internship) Topological tools for music analysis graphs.

2019

Projects

GraphMuse

2023 - 2024

Created and published an open-source python library for Graph-Based Deep learning on Symbolic music.

- Standardized methodologies for fast and efficient data handling
- Formalized input and output ontologies for graph-based representations
- Introduced high-capable State-of-the-art music intuitive models

2020 - Present

Active developer of the Python package Partitura for symbolic music processing. Main contributions:

- DevOps and continuous development with test suites
- Wrote several parsers for symbolic music formats
- Developed ontologies for musical elements such as harmony, phrases, intervals, etc.

GENERATIVE MUSIC MEDICINE

2024 - Present

Fine-tuned large music/audio generative models (diffusion and autoregressive). Developed, trained and deployed emotion-based conditioning for such models for the purpose of applying them in a music therapy setting.

EDUCATION

JOHANNES KEPLER UNIVERSITY LINZ

2021 - 2024

Doctorate Degree on AI from the Department of Technical Sciences.

DIDEROT UNIVERSITY PARIS 7

Master on Mathematical Logic and Programming Fundamentals from the Department of Mathematics

DESCARTES UNIVERSITY PARIS 8

2017 - 2019

Master of Composition and Musical Programming from the Department of Fine Arts

Aristotle University of Thessaloniki

2012 - 2017

Diploma of Musicology from the Department of Fine Arts with an integrated Master on Composition and Analysis