COMBINING MUSIC SPECIFIC EMBEDDINGS FOR COMPUTING ARTIST SIMILARITY

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Venice, 1678  Birth Date + Place  Venice, 1671
Vienna, 1741  Death Date + Place  Venice, 1750?

PERSON FEATURES
Concerts, Airs, Sonatas
C major, F major, Bb major
Contino, String orchestra, Violin
Genres
Keys
Castings
Concerts, Sonatas, Triosonatas
D major, C major, Bb major
Contino, String orchestra, Cello

COMPOSED WORK FEATURES
Violin  Medium of performance  Violin
Composer, Performer  Functions  Composer, Performer, Conductor
Venice, Roma, Vienna  Places  Venice, Munchen

PERFORMANCE FEATURES

When are 2 genres or 2 instruments similar?
Can we exploit complex musical knowledge for computing the similarity between 2 artists?
What are the main reasons that contributed to this similarity?

EMBEDDINGS GENERATION
VOCABULARIES (hierarchy + properties) + USAGÉ (in works and performances)

FEATURE EMBEDDINGS
NODE2VEC
MoPs  GENRES  KEYS  ...

ARTIST FEATURES
ARTIST EMBEDDING

SIMILARITY
ARTIST 1 EMBEDDING
ARTIST 2 EMBEDDING
ARTIST 1 EMBEDDING
ARTIST 2 EMBEDDING

s(Violin, Violin) = 1.0
s(Sonata, Triosonata) = 0.7

EXPLANATION
ARTIST 1  “Antonio Vivaldi”
ARTIST 2  “Tomaso Albinoni”

Similarity score by feature
Select the ones with the highest score

- Same period (1671 - 1750)
- Same genres (CONCERTS, SONATAS)
- Similar castings (VIOLIN and CELLO)

CONTACTS & INFO
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See the DEMO inside
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