12. Melody generation with Markov chains

Generative Music AI

THE SOUND OF AI

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What we'll build

- *MarkovChainMelodyGenerator*

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- States = *(pitch, duration)* = *(E5, 1)*

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- *MarkovChainMelodyGenerator*
- States = *(pitch, duration) = (E5, 1)*
- Main methods:
  - *train*
  - *generate*

Exploration

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- Train on melody dataset

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- Different state encoding

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- 2 Markov chains in parallel:
  - 1 for pitch / duration
  - 1 for dynamics

Exploration

- Tinker probabilities manually
- Train on melody dataset
- Different state encoding
- 2 Markov chains in parallel:
  - 1 for pitch / duration
  - 1 for dynamics
- Markov chain for chord generation

What’s up next?

Cellular automata