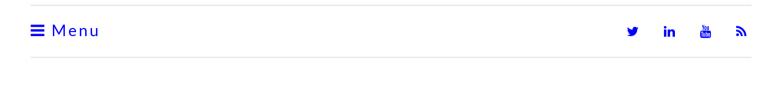# Amund Tveit's Blog

☰ **Menu**

,   ,   ,   ,

Deep Learning for Music

November 22, 2016   1 Comment

Deep Learning (creative AI) might potentially be used for music analysis and music creation. Deepmind's Wavenet is a step in that direction. This blog post presents recent papers in Deep Learning for Music.

note: If you are curious about oversight of Deep Learning topics, please consider subscribing to my Deep Learning Newsletter at the end of this blog post.

Best regards,

Amund Tveit

Generation, Analysis and Segmentation of Music

1. Deep Learning for Music
   – Authors: A Huang, R Wu (2016)
2. Live Orchestral Piano, a system for real-time orchestral music generation
   – Authors: L Crestel, P Esling (2016)
3. Unsupervised feature learning for Music Structural Analysis
   – Authors: M Buccoli, M Zanoni, A Sarti, S Tubaro, D Andreoletti (2016)

5. An Intelligent Musical Rhythm Variation Interface
   – Authors: R Vogl, P Knees (2016)
6. Probabilistic Segmentation of Musical Sequences using Restricted Boltzmann Machines
   – Authors: S Lattner, M Grachten, K Agres, Cec Chacan (2015)
7. Machine Learning Applied to Musical Improvisation
   – Authors: Rm Keller (2015)
8. A Deep Neural Network for Modeling Music
   – Authors: P Zhang, X Zheng, W Zhang, S Li, S Qian, W (2015)
9. Deep symbolic learning of multiple temporal granularities for musical orchestration.
   – Authors: F Jacquemard, G Peeters, P E. (2015)
10. Deep Karaoke: Extracting Vocals from Musical Mixtures Using a Convolutional Deep Neural Network
    – Authors: Ajr Simpson, G Roma, Md Plumbley (2015)
11. Deep Remix: Remixing Musical Mixtures Using a Convolutional Deep Neural Network
    – Authors: Ajr Simpson, G Roma, Md Plumbley (2015)
12. Analysis of musical structure: an approach based on deep learning
    – Authors: D Andreoletti (2015)
13. An exploration of deep learning in content-based music informatics
    – Authors: Ej Humphrey (2015)
14. Fusing Music and Video Modalities Using Multi-timescale Shared Representations
    – Authors: B Xu, X Wang, X Tang (2014)

Music Transcription

1. An End-to-End Neural Network for Polyphonic Piano Music Transcription
   – Authors: S Sigtia, E Benetos, S Dixon (2016)
2. Music transcription modelling and composition using deep learning
   – Authors: Bl Sturm, Jf Santos, O Ben (2016)
3. Rewind: A Music Transcription Method
   – Authors: Cd Carthen (2016)
4. An End-to-End Neural Network for Polyphonic Music Transcription
   – Authors: S Sigtia, E Benetos, S Dixon (2015)

1. Novel Affective Features For Multiscale Prediction Of Emotion In Music
   – Authors: N Kumar, T Guha, Cw Huang, C Vaz, Ss Narayanan (2016)
2. Demv-Matchmaker: Emotional Temporal Course Representation And Deep Similarity Matching For Automatic Music Video Generation
   – Authors: Jc Lin, Wl Wei, Hm Wang (2016)

Classification

1. A Comparative Study on Music Genre Classification Algorithms
   – Authors: W Stokowiec (2016)
2. Audio-Based Music Classification with A Pretrained Convolutional Network
   – Authors: E Dieleman, B Schrauwen (2016)
3. Semantic Labeling of Music
   – Authors: P Knees, M Schedl (2016)
4. Classification of classic Turkish music makams by using deep belief networks
   – Authors: Mak S, B Bolat (2016)
5. Deep convolutional neural networks for predominant instrument recognition in polyphonic music
   – Authors: Y Han, J Kim, K Lee (2016)
6. Deep learning, audio adversaries, and music content analysis
   – Authors: C Kereliuk, Bl Sturm, J Larsen (2015)
7. Speech Music Discrimination Using an Ensemble of Biased Classifiers
   – Authors: K Kim, A Baijal, Bs Ko, S Lee, I Hwang, Y Kim (2015)
8. Deep Learning and Music Adversaries
   – Authors: C Kereliuk, Bl Sturm, J Larsen (2015)
9. Musical notes classification with Neuromorphic Auditory System using FPGA and a Convolutional Spiking Network
   – Authors: E Cerezuela (2015)
10. A Deep Bag-of-Features Model for Music Auto-Tagging
    – Authors: J Nam, J Herrera, K Lee (2015)
11. Music Genre Classification Using Convolutional Neural Network
    – Authors: Q Kong, X Feng, Y Li (2014)
12. An Associative Memorization Architecture of Extracted Musical Features from Audio Signals by Deep Learning Architecture
    – Authors: T Niwa, K Naruse, R Ooe, M Kinoshita, T M (2014)

Sign up for my Deep Learning newsletter!   USERNAME@DOMAIN.COM   Subscribe   ▲

Search and Recommender Systems

1. Deep learning for audio-based music recommendation
   – Authors: S Dieleman (2016)
2. A compositional hierarchical model for music information retrieval
   – Authors: M Pesek, A Leonardis, M Marolt (2014)

Please sign up for Amund Tveit's Deep Learning Newsletter!

Email address

YOUR EMAIL ADDRESS...

Subscribe

AI   Artificial Intelligence   deep learning   Music

Previous Post	**Next Post**

You may also like

December 2, 2016   December 27, 2016   December 14, 2016

Deep Learning with Gaussian   Deep Learning for Vehicle Detection   Deep Learning in Finance
Process   and Classification

Sign up for my Deep Learning newsletter!   USERNAME@DOMAIN.COM   Subscribe   ▲

Pingback: [Overview of recent Deep Learning Bibliographies – Amund Tveit's Blog](#)

Leave a Reply

Your email address will not be published. Required fields are marked *

Comment

Name *

Email *

Website

Post Comment

Subscribe to my Deep Learning newsletter!

Email address

SEARCH   🔍

Amund Tveit

This site is (primarily) about Deep Learning (subfield of Artificial Intelligence), with emphasis on recent research and technology.

Best regards,
Amund Tveit (@atveit)

Disclaimer:
I speak only on behalf of myself on this site

⭐ **DeepLearningKit**   **1,043**

(Github)