Emmanouil Theofanis Chourdakis

PhD Candidate at the **Centre for Digital Music**
Thesis: "Computational methods for assisting radio-drama production" (**defended succesfully on April 1st, 2020**).

Electronic Engineering and Computer Science
Queen Mary University of London
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Github: `https://github.com/mmxgn`

Education

2014: MSc Digital Music Processing
Grade Average: 80% (*Distinction*)
Electronics Engineering & Computer Science
Queen Mary, University of London

2011: Engineering Diploma
Grade: 7.46/10 (*Very Good*)
Electronics and Computer Engineering
Technical University of Crete

Language Skills

English: *TOEFL Internet-Based Test (iBT)*
Total score: 103
Educational Testing Service (ETS)

Six years living & studying
in London, UK

Greek: Native Language

French: Elementary Knowledge

Awards

2014: Michael Clark Prize for Best Electronic Engineering Project – Queen Mary, University of London.

Interests/Skills

Domain of Interest:	**Machine Learning for Sound, Music and Natural Language understanding.**
Languages:	**Python**; **Matlab**; **C**; **C++**; Prolog; bash, **FAuSt**.
Toolkits:	NumPy; **Pandas**; **Scikit-Learn**; NLTK; **Keras**; **PyTorch**; **Essentia**; Juce.
Other:	GNU and Unix Utilities; Emacs; LaTeX; **Sonic-Visualiser**; `Praat`.

Academic and Industrial Experience

2018/2019:	Industrial placement at the BBC Research and Development's Audio Team working on automatic mixing for object-based audio.
2019/2020:	PC Member for the Sound And Music Computing 2019/2020 Technical Programs (SMC 2019/2020).
2018:	Sub-reviewer for the International Conference on Digital Audio Effects (DAFx 2018).
2016/17:	Teaching Assistant for supporting Matlab-based MSc projects. Lab Assignment TA for the Music and Speech Processing postgraduate module.
2015:	Marking of final exam scripts for the Digital Signal Processing undergraduate and postgraduate module. Lab Assignment teaching assistant (TA) for the Advanced Transform Methods module.

Other Training

2019: Natural Language Processing – National Research University Higher School of Economics on Coursera
2014: Mining Massive Datasets – MOOC on Coursera by Stanford University.

Organizing/Volunteering

2019 (March):	AES 146th Pro Audio Convention – Chairing of DSP-1 paper session.
2016 (September):	2nd Workshop on Intelligent Music Production – Chairing of poster session.
2015 (July):	#AudioMusicHackathon – A two days hackathon at Queen Mary University of London sponsored by Harman developer. General Volunteering and food provisions.

Notable Publications

Chourdakis, Ward, Paradis, and Reiss (2019)	***Modelling experts' decisions on assigning narrative importances*** *of objects in a radio drama mix* In Proceedings of the 22nd International Conference of Digital Audio Effects
Chourdakis, E.T. & Reiss, J.D. (2019)	***Tagging and Retrieval of Room Impulse Responses Using Semantic Word Vectors and Perceptual Measures of Reverberation***. In 146th Audio Engineering Society Convention
Chourdakis, E.T. & Reiss, J.D. (2018)	***Grammar Informed Sound Effect Retrieval for Soundscape Generation*** In Proceedings of the DMRN+ 13: Digital Music Research Network One-day Workshop
Chourdakis, E.T. & Reiss, J.D. (2018)	***From my pen to your ears: automatic production of radio plays from unstructured story text*** In Proceedings of the 15th International Sound and Music Computing Conference
Chourdakis, E.T. & Reiss, J.D. (2017)	***Constructing narrative using a generative model and continuous action policies*** The INLG 2017 Workshop on Computational Creativity in Natural Language Generation
Chourdakis, E.T. & Reiss, J.D. (2017)	***A Machine Learning Approach to Application of Intelligent Artificial Reverberation*** Journal of the Audio Engineering Society 65.1/2
Shirley, Ward & Chourdakis (2019)	***Personalization of Object-based Audio for Accessibility using Narrative Importance*** ACM International Conference on Interactive Experiences for Television and Online Video, Workshop on In-Programme Personalisation

Opensource Research Software/Tutorials

Genre-Classification (Author - 2020)	A Music Genre Classifier using transfer learning developed in 2 days using MusiCNN and XGBoost and deployed using Docker as part of an interview process.
speech-music-sfx (Author - 2019)	Keras model that discriminates between Speech, Music, and Sound effects. Based on VGGish which is trained on Google's Audioset.
ClausiePy (Author - 2018)	Implementation of Del Corro and Gemulla's Clausie Information Extraction system for Python+Spacy with bindings for Python and Problog.
MiniePy (Author - 2018)	Python wrapper of Gashteovski, Gemulla, and Del Corro's Minie Information extraction system.
SpRL-SpaCy (Author - 2018)	A Spacy model for Spatial Role Labelling with bindings for Python and Problog.
Simscene.py: (Author - 2017)	A collection of tools for synthesizing acoustic scenes in a hierarchical way using `.xls` files. It is based on Simscene by M. Lagrange et al. Written in python.
smooth-convex-kl-nmf: (Author - 2017)	A python library for minibatched smooth and convex Kullback-Leibler Non-Negative Matrix Factorization based on the paper by Essid, S. and Févotte, C.
KERAS-LSTM-CHAR-CNN	Tutorial on implementing LSTM-CHAR-CNN by Yoon, K. et al in Keras.

Notable Degree Projects

Master Degree Thesis:	**Intelligent Application of Artificial Reverberation to Multi-track Mixes** Implemented an HMM for controlling an an Algorithmic Reverberation Effect. Published in the Proceedings of the 16th Audio Engineering Society Conference on Dereverberation and Reverberation of Audio, Music, and Speech.
Eng. Diploma thesis:	**Computer-aided (music) composition using Inductive Logic Programming** Learning of rules in first order predicate calculus using Inductive Logic Programming and existing examples, constructing Constraint Satisfaction Problems and production of pdf sheets and midi files by using the `Strasheela` music composition system.