

Sertan Şentürk

MIR Researcher

I am pursuing a career in music technology with a specialization in audio signal processing & machine learning. As part of my endeavors, I aim to develop novel and scalable solutions for the automatic description, retrieval and discovery of big musical data.

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Work and Research Experience

Sep 2011 - Sep 2016

Barcelona, SPAIN

Doctoral Researcher in CompMusic Project Music Technology Group, Universitat Pompeu Fabra

Tasks/Achievements

- Developed signal processing and machine learning based, novel methodologies to automatically describe audio recordings and music scores
- Implemented the proposed methodologies and the current state-of-the-art in Python within a modular, easy-to-use and open source toolbox: <https://github.com/sertansenturk/tomato>
- Assisted the deployment of the analysis tools into a web-based automatic music description and discovery application, online at: <http://dunya.compmusic.upf.edu/makam/>
- Built (supported by musicians and other researchers) the largest corpus of makam music available for computational research
- Obtained corpus-based, automatic and generalizable descriptions of the studied music cultures

PhD Supervisor: Xavier Serra - xavier.serra@upf.edu

Aug 2009 - Aug 2011

Atlanta, GA, USA

Graduate Research Assistant Georgia Tech Center for Music Technology

Tasks/Achievements

- Generated computational models of melody and rhythm based improvisational styles from Turkey and India
- Designed several interactive music interfaces

Education

Sep 2011 - Feb 2017

Barcelona, SPAIN

PhD in Information, Communication and Audiovisual Technologies Universitat Pompeu Fabra

Aug 2009 - Aug 2011

GPA: 3.64/4.00 - Atlanta, GA, USA

MSc. in Music Technology Georgia Institute of Technology

Courses

- Computational Music and Audio Analysis
- Music Technology Research Lab
- Digital Signal Processing
- Interactive Music
- Music Perception & Cognition
- Computer Music Composition

Sep 2004 - Jun 2009

GPA: 3.13/4.00 - Ankara, TURKEY

BSc. in Electrical and Electronics Engineering Middle East Technical University

Courses

- Digital Signal Processing
- Discrete Time Systems
- Signals and Systems I - II
- Data Structures
- Computational Methods in Engineering
- Probability and Random Variables

Sep 2005 - Jun 2009

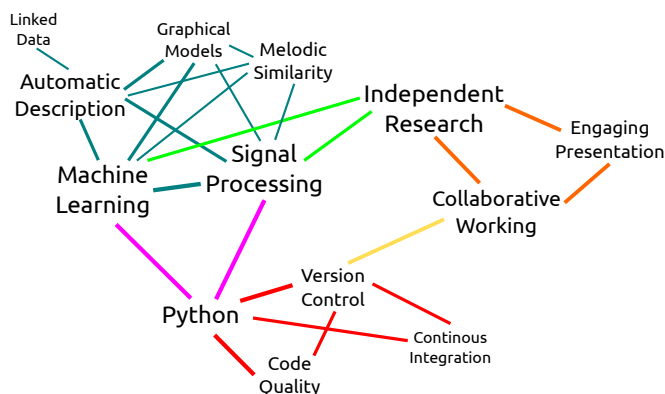
GPA: 87.75/100 - Ankara, TURKEY

Part-time Classical Guitar Program Hacettepe University Ankara State Conservatory

Courses

- Classical Guitar
- Solfège and Music Theory

Skills & Competences



Publications

Published 30 papers on music information retrieval and interactive music

- 150 citations listed in Google Scholar: <https://goo.gl/Qwj6z>
- Şentürk, S. (2016). **Computational analysis of audio recordings and music scores for the description and discovery of Ottoman-Turkish makam music**. PhD thesis, Universitat Pompeu Fabra, Barcelona, Spain.
- Şentürk, S., Holzapfel, A., and Serra, X. (2014). **Linking scores and audio recordings in makam music of Turkey**. JNMR, 43:34–52.
- Şentürk, S., et al. (2012). **Crossole: A gestural interface for composition, improvisation and performance using Kinect**. NIME 2012, pages 449–502.
- Please visit <http://sertansenturk.com/research/publications/> for an up-to-date list

Selected Talks

Feb 2016

Numerous Music and Engineering Schools

Culture specific approaches in music technology

Main Speaker in a Series of Seminars

- Showcased the research output (e.g. the music corpus, computational methodologies, developed technologies and corpus-level descriptions) obtained within the CompMusic project

Jan 2017

Universitat Pompeu Fabra

Why Reproducibility Matters? A Personal Experience

Invited Talk

- Provided guidelines and best-practices (e.g. in data organization and software development) for conducting reproducible research
- The slides are available online: <https://zenodo.org/record/255537>

Teaching Experience

Sep 2012 - Aug 2015

Universitat Pompeu Fabra

Senyals i Sistemes (Signals and Systems) Undergraduate Course

Responsibilities

- Lab coordinator (2015), lab Instructor (2012 – 2015), seminar instructor (2014)

Languages

English

Fluent

Spanish

Upper-intermediate

Turkish

Native

German

Pre-Intermediate