

Sertan Şentürk

Lead Data Scientist

London, UK

I am pursuing a career in data science & ML engineering, specializing in information retrieval and audio analysis. I have extensive knowledge and experience in entity recognition, digital signal processing, and machine learning. As part of my endeavors, I aim to design and build scalable & robust solutions for the automatic description, retrieval and discovery of big data.

+44 784 888 46 49

<http://sertansenturk.com>

sertansenturk@gmail.com

www.github.com/sertansenturk

www.linkedin.com/in/sertansenturk



Work and Research Experience

Kobalt Music Group

Lead Data Scientist - Research & Development

Jun 2019 - ongoing

London, UK

- As the lead DS of a team, design & build a entity matching service, which could scale to 100s of millions instances of metadata. **Technologies: Scala/Spark, Elasticsearch, sklearn, terraform, Docker, AWS Sagemaker, EMR, lambda, step functions**
- Investigate **attention-based deep learning** models and **locality sensitive hashing** to match 100s of millions of instances of semi-structured and unstructured metadata. **Technologies: PyTorch, EMR, Sagemaker, Scala/Spark**
- With product, captured metadata matching requirements in **20+** use cases across the business
- With the aid of product and business, identified underreported royalties using metadata matching, which is estimated to recover **~\$1M** revenue for the clients
- Technical supervision of data engineers, data scientists and interns in various projects
- Evaluated external solutions for metadata matching, audio autotagging, version identification, and audio fingerprinting
- Oversee internship, learn & dev, and academic outreach efforts

Senior Data Scientist - Research & Development

Jan 2018 - May 2019

London, UK

- Developed & deployed a matching app in Python, which achieved a MAP of >0.93 on more than 8 tasks and reduced the processing time from ~2 days to less than 2 hours. **Technologies: Elasticsearch, AWS batch, terraform**
- With a data engineer, deployed a serverless machine learning lifecycle management tool to AWS. **Technologies: mlflow, AWS, ECS, terraform**
- Embedded into 4 different teams and assisted them to achieve their data-driven objectives
- Applied research on state-of-the-art metadata matching methods
- Provide internal training on data science and machine learning

New York University, Abu Dhabi

Data Science Consultant

Jun 2019 - ongoing

Abu Dhabi, UAE (remote)

- Provide technical support and training (e.g. Docker, TDD, experiment tracking, machine learning modelling) to the *Music and Sound Cultures Research Group*
- Develop music information retrieval methods for the computational analysis of various music traditions

Universitat Pompeu Fabra

Doctoral Researcher

Sep 2011 - May 2017

Barcelona, SPAIN

- Developed state-of-the-art signal processing and machine learning methods to describe audio recordings, music scores and metadata
- Implemented the methods in Python in a modular, easy-to-use and open source toolbox: <https://github.com/sertansenturk/tomato>
- Assisted the deployment of the toolbox into a web-based music discovery app: <http://dunya.compmusic.upf.edu/makam/>

Georgia Tech Center for Music Technology

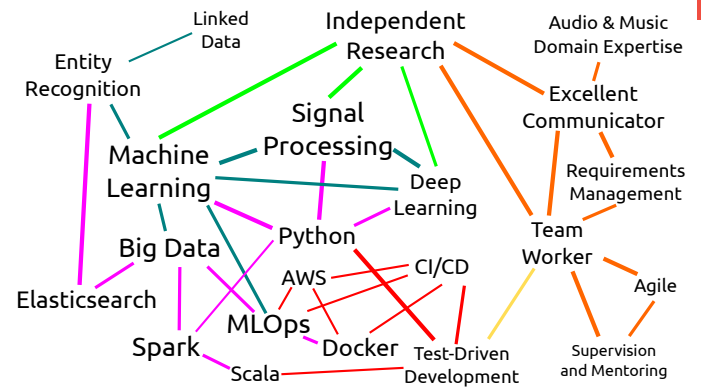
Graduate Research Assistant

Aug 2009 - Aug 2011

Atlanta, GA, USA

- Created generative computational models of music improvisation
- Percussion sound modeling and synthesis

Skills & Competences



Education

Sep 2011 - Feb 2017

Barcelona, SPAIN

PhD in Information, Communication & Audiovisual Technologies

Universitat Pompeu Fabra

Aug 2009 - Aug 2011

Atlanta, GA, USA

MSc. in Music Technology

Georgia Institute of Technology

Sep 2004 - Jun 2009

Ankara, TURKEY

BSc. in Electrical and Electronics Engineering

Middle East Technical University

Sep 2005 - Jun 2009

Ankara, TURKEY

Part Time Classical Guitar Program

Hacettepe University Ankara State Conservatory

Academic Works and Services

30+ papers on audio signal processing and machine learning

<http://sertansenturk.com/research/publications/>

400+ citations listed in Google Scholar: <https://goo.gl/Qwj6z>

ISMIR, Conference Industry and Sponsorship Co-Chair **2021**

Reviewer in top MIR and ML venues

NeuRIPS, ICLR, ICML, ISMIR

Recent Talks

Jul 2020

Queen Mary University of London

Working in the Industry: A Personal Experience

Sep 2019

Berlin Music Information Retrieval Meetup

Metadata problems in the music industry

(and how to match music metadata)

May 2019

London Elasticsearch Meetup

Metadata Matching Using Elasticsearch

Outreach and Mentorship

Co-Organizer of *London Audio and Music AI Meetup* **2020 - ongoing**

Mentor at *Women in Music Information Retrieval* **2017 - ongoing**

10+ mentees on various topics on **machine learning, audio signal processing, software development, sustainability** and **ethics**

Languages

English *Fluent*

Turkish *Native*

Spanish *Upper-Interm.*

German *Pre-Interm.*

Catalan *Beginner*