

EDUCATION

Ecole Centrale de Lyon, MSc Engineering **GPA : 3.9/4** 2018 - 2022

- Coursework: Elective classes in Python, C++, Acoustics, Musical Acoustics, Signal processing.
- Core classes in Statistics, OOP, Machine Learning, Linear Algebra, Management.

University of Adelaide, MSc Engineering - Acoustics, Data science **GPA : 5.86/7** 2021-2022

- Coursework: Elective classes in Deep Learning, Natural Language Processing, Computer Vision Reinforcement learning, Applied Machine Learning, Statistics. (**Golden key award for academic excellence**)
- Project: Music Information Retrieval project - Vocalist classification via spectrogram computer vision. (**Github**)
- Project: Forecasting - GOOGL stock prediction via RNN. (**Github**)

Machine Learning Course - Andrew Ng, Coursera 2021

Neural Networks, Regression, Recommender Systems, K-means, KNN. Natural Language Processing, Computer Vision.

EXPERIENCE

Data Scientist / Music Information Retrieval Scientist **April 2022 - Present**

Groover Paris, France

- Master's Thesis:** Implemented audio tagging at scale towards better musical recommendations.
- Researched, built and tested seven state of the art music tagging models, reaching 92% ROC-AUC.
- Designed, Set up, and evaluated relevant experiments. Designed full audio processing pipeline on 1M tracks.
- Extracted key insights from large datasets using metabase and SQL on user behaviour with A/B testing, improving key metrics by 10%. Created dashboards of 10 countries with exploratory data analysis for the Curator team.

Skills : Python, Tensorflow, Pytorch, SQL, Git, Librosa, AWS, Keras, Computer Vision, Music Information Retrieval, DSP

Data Science Intern **March 2021 - September 2021**

Artefact Paris, France

- Created a Streamlit web app for bulk labeling 1 million sample NLP datasets using Huggingface and TensorFlow. (**Github**)
- Implemented 3 dimension reduction and 3 clustering algorithms to predict automatic clusters of topics for NLP datasets.
- Consulted for 20 ENGIE stakeholders towards help desk caller polarity sentiment analysis through a speech-to-text pipeline.

Skills : Python, Tensorflow, Streamlit, HuggingFace, Git, SQL, Azure Cloud, NLP, Data Science, Data analysis, Jupyter

Data Science Intern **October 2020 - March 2021**

Data New Road Paris, France

- Implemented deep learning algorithms towards real-time prediction of accidents, short term prediction of traffic flow reaching 10% MAPE. Researched state of the art traffic flow prediction algorithms (graph neural networks, CNN) .

Skills : Python, Tensorflow, NoSQL, AWS DynamoDB, MongoDB, Neo4J, Git, Jenkins, Agile, Scrum, Jupyter

Research Intern **March 2020 - July 2020**

IRCAM Paris, France

- Conducted research towards active control of the first vibrational modes of a cello strings using Matlab, reaching 3% spectral error. Gained in-depth understanding of signal processing and spectral representations as well as research methods.

Skills : Matlab, Signal processing, Acoustics, Applied physics, Research, DSP

SKILLS

Languages and Packages	Python, Jupyter Notebook, Pytorch, TensorFlow, Pandas, Numpy, Librosa, Sklearn, SQL, PostgreSQL, MySQL, C++, Javascript, React, threeJS, Django
Quantitative	Machine Learning, Deep Learning, Music Information Retrieval, NLP, Computer Vision, Statistics, Exploratory data analysis, Signal processing, Acoustics, Musical Acoustics
Tools and platforms	Git, Github, AWS, Metabase, Jira, Jenkins, Azure cloud, L ^A T _E X
Creative and Music	Ableton, FL Studio, Photoshop, Premiere, Illustrator
Linguistics	English (native), French (Native), Spanish (limited working), Japanese (beginner)

ACTIVITIES AND PROJECTS

Independent research	Video Classification with Video transformers on Music tagging	2022
Medium articles	Vulgarization of state of the art ML on medium (Link)	2022
President of DJ association	Presided over a 16-member DJing and sound engineering student society. Over-saw the organisation of events with 1000 attendees and DJed at them.	2019 - 2020
Sound & mixing engineer, Community manager	Three years as sound engineer for a student musical With 44k€ of equipment & 2000 spectators. Mix engineer for the album of orchestral arrangements. Media creation and social media marketing for the same musical.	2018 - 2021

INTERESTS

Music: 8-year self-taught Guitarist, Bassist, Keyboardist. Bass vocalist. Producer & DJ for 1000-people events.