Mariano Arouxet

SOUND ENGINEER

About me

I am a Sound Engineer with experience in acoustical measurements, programming for signal processing, investigation and university teaching. I am mostly interested in research and development, laboratory testing, instrumentation and signal processing.
I am currently looking for an experience to grow professionally, working for a worldwide leader company. At the moment, I am available for remote work and willing to relocate in the medium term.

Languages

Spanish ● ● ● ● ●

English ● ● ● ● ○

French ● ○ ○ ○ ○

Contact

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◎ Buenos Aires, Argentina

in marianoarouxet

Work experience

PRODUCTION AND SERVICES ENGINEER

C.I.S.T.A.S. (Center for Sound & Acoustical Technical Services) - Universidad Nacional de Tres de Febrero
03/2020 - Currently

- Research and development of products or prototypes for other companies, related with audio (software, apps, hardware), NDT, electroacoustics.
- Signal processing (MATLAB & Python).
- Collaboration in VST plugins (JUCE Framework - C++).
- Development of Android apps related with audio signal processing (Java)
- Documentation of research.
- Industrial services: accelerometers and vibrometers calibration, acoustical measurement (room acoustics, building acoustics, environmental acoustics).

ENVIRONMENTAL SURVEY ENGINEER AND ACOUSTICAL CONSULTANT FOR MRI EQUIPMENT

DALDE BLINDAJES ELECTROMAGNÉTICOS
01/2015 - 02/2020

- MRI project feasibility analysis based on environmental requirements.
- On-site vibration, magnetic field, radiofrequency and noise measurement
- Design of antivibrators for polluting machines in hospitals and healthcare centres.
- MRI equipment noise and vibration control.
- Active and passive control of magnetic field.
- Optimization of noise control methods in walls, doors, windows and air ducts for MRI facilities.
- Collaboration on standardization and establishment of processes.
- Development of software for internal use.

AUDIO ELECTRONIC TECHNICIAN

UNIVERSIDAD NACIONAL DE TRES DE FEBRERO
03/2013 - 12/2014

- Inventory and organization of electronic, acoustic and electroacoustic equipment.
- Instruments failure analysis and repair.
- Maintenance of electronic laboratory.
- Calibration of instruments for internal use.

PROFESSOR : ACOUSTICS AND PSYCHOACOUSTICS 1

UNIVERSIDAD NACIONAL DE TRES DE FEBRERO
06/2018 - Currently

- Theoretical and practical classes, related with:
  - Oscillatory systems (ODF and MDF).
  - Antivibration systems design.
  - Wave equation and applications (1D and 3D).
  - Waves in ducts, stationary waves and mufflers.
  - Sound radiation, acoustic impedance.
  - Outdoor sound propagation.
  - Acoustics measurements.
  - Acoustics of musical instruments.
- Laboratory practices preparation.
- FEM and BEM simulations.
- Thesis Tutoring: "Using Machine Learning to analyse the phonetics of spanish language to create list of words for audiometry tests"

Education

POSTGRADUATE CERTIFICATE IN NON-DESTRUCTIVE TESTING (2-YEAR PROGRAM)
Universidad Tecnológica Nacional
03/2016 - 12/2016 - on hold

FIRST UNIVERSITY DEGREE SOUND ENGINEERING (5-YEAR PROGRAM)
Universidad Nacional de Tres de Febrero
03/2009- 12/2015 - Completed - GPA: 8.9/10

Skills

- Audio and acoustical measurement.
- Audio Electronics.
- Signal Processing.
- Numerical Simulations.
- Machine Learning.
- Programming: MATLAB, Python (Advanced), C, Java, VBA (Intermediate), C++ (Basic).

- Balanced individual and teamwork.
- Analytical profile.
- Proactivity.
- Curiosity.
- Continuous learning.
- Commitment.

Developments

Tescucho - Android app for automatic speech to text transcription - 2020
Activities: Implementation of an offline open-source automatic speech recognizer for android (Java and Python)

Vibrations Measurer - MPU6050 + Arduino + Python to measure vibrations for educational uses - 2020
Activities: hardware and software implementation of a system to generate and measure vibrations

La fábrica del Silencio - Anechoic chamber for educational and recreational uses - 2017
Activities: acoustical design (noise insulation, room acoustics), acoustical measurement, project management.

Scattref - Software for measuring Random Incidence Scattering coefficient (ISO 17497 - 1) - 2015
Activities: Full implementation: signal generation, multichannel audio recording, signal processing (MATLAB)

Research

09.2016 | Co-autor: "Gaussian white noise impulse responses as absolute diffusion reference values". 22nd International Congress on Acoustics ICA 2016, Paper Number 574. Buenos Aires, Argentina.

10.2015 | Co-autor: "Measuring Sound Field Diffusion: SFDC". Audio Engineering Society Convention 139, Paper Number 9462. Nueva York, USA.

07.2015 | Co-autor: "Sound Field Diffusion Coefficient: Development and definitions". Conference: 22th International Congress of Sound and Vibration. Florencia, Italia.

06.2013 | Co-autor: "Speaker recognition analysis using running autocorrelation function parameters". The Journal of the Acoustical Society of America, 133, 3293-3293.