# Bernardo TORRES

#### **PhD Student at Telecom Paris**

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### **EDUCATION**

PhD Student 2023-Present

### Telecom Paris, Institut Polytechnique de Paris

Palaiseau, France

• Music understanding, source separation and synthesis using hybrid deep learning

Part of HI-Audio project (Hybrid and Interpretable Deep Neural Audio Machines)

Master M2 2021-2022

### ENS Paris-Saclay, MVA (Mathematics, Vision and Learning)

Gif-sur-Yvette, France

• Deep Learning, Artificial Intelligence, Audio and Speech processing, Computer Vision

Highest honors

Engineering degree

2020-2022

# Telecom Paris, Institut Polytechnique de Paris

Palaiseau, France

Signal Processing, Machine Learning, Embedded Systems

GPA: 4.0

# Bachelor's Degree in Electrical Engineering

2016-2022

Universidade Federal de Minas Gerais

Belo Horizonte, Brazil

• Electrical, Electronics and Computer Engineering

### **WORK EXPERIENCE**

Research Intern From April 2022 to September 2022

# **Sony Computer Science Laboratories**

Paris, France

• Research topic: Singing Voice Conversion in a music production context

• Research in Deep generative models, Neural Audio Synthesis, Self-Supervised Learning

Intern

From July 2019 to May 2020

### Radix Engineering and Software

Belo Horizonte, Brazil

- Worked with data science and machine learning with a focus in predictive maintenance and anomaly detection
- Trained and deployed models based on statistical quality control and LSTM networks

### **PROJECTS**

Head of electronics 2018-2019

### **Formula SAE UFMG** - Formula Student Team from Universidade Federal de Minas Gerais (UFMG)

Belo Horizonte, Brazil

- Lead a group of 8 people in the design, manufacturing and testing of the electrical and electronics subsystems
- Designed, developed and deployed an embedded data acquisition system

### Team member - Telemetry and Data

Formula SAE UFMG

2017-2019

#### • Developed a data analysis tool in python

Belo Horizonte, Brazil

Developed a data allalysis tool ill pytholi

• Designed the team's first telemetry system

## **SKILLS**

**Spoken Languages:** Portuguese (native), English (fluent, Cambridge CAE C2), French (fluent), Spanish (B2)

**Programming Languages:** Python, C, C++, SQL, SystemVerilog

Software, Platforms: Git, Linux, LateX, Matlab, Microsoft Azure, Solidworks, Pi System, LabView

Other/Interests Music, Sound synthesis, Electronic Music Production/Mixing, Contemplative Sciences,

Meditation