



# Roberto Grilli

Audio Engineer  
& Designer

## TECHNICAL UNIVERSITY PROJECTS

### AudioVisual Perception in Interactive Media Investigating Point of Audition in game audio

more: Website

Through the analysis of video games examples, the project addresses the implementation of game audio (iOS, Unreal, Unity), investigates the spatial relation between in-game sources and audio listener, and how this influences the audiovisual perception.

### Binaural 3D Sound Experience Interrogation scene

more: Website

- The scene takes place in a cave, the listener is the hooded prisoner
- Foley sound effects are recorded to reproduce a convincing soundscape
- A database of recorded IRs is employed to obtain the cave reverberation
- KEMAR dummy HRTFs are convolved with the signal to reproduce it in binaural

### Hardware interfacing for audio Feel the (poly)Rhythm game

more: Website demo: YouTube

- A Pure Data game for training the user to play polyrhythms
- Interfaces the BBC Micro:Bit microcontroller to the game PD patch
- Controls the signal flow of the MIDI data received
- In-game UI designed with GEM library(*Graphics Environment for Multimedia*)

### Voice Synthesis System in Max/MSP

more: Website demo: YouTube

The system educates on the differences between the British and Italian accent. The user listens to the English and Italian pronunciation of the word "spaghetti", adjusts both the syllables timing and pitch of the English pronunciation, trying to resemble the Italian accent.

## EDUCATION

### MSc Audio and Music Technology

2019-20, Master of Science, Distinction  
University of York, York (YO), England

### BA Music Production

2015-18, Bachelor of Arts with Honours  
Music Academy "since 1999", Bologna (BO), Italy  
(Awarded by the University of Bedfordshire)

### Liceo Scientifico - Communications

2010-15, High School Diploma, (BA), Italy

## OTHER TRAINING

### Unreal Engine C++ Developer

Memory Management, Ray-casting, OOP, 3D Vector Math, Physics...

Online course on Udemy

Created in collaboration with Epic Games

## PROFESSIONAL SKILLS / COMPETENCES / KNOWLEDGE

Digital Audio Workstations — Languages and Tech skills • Psychoacoustics - Critical Listening

Reaper  
Pro Tools  
Logic Pro  
Ableton Live

Max MSP , Pure Data  
C++ , C# , Swift  
Python , Matlab  
Git

- Digital Signal Processing - Synthesis
- Object-oriented Programming
- Game Audio Implementation
- Composing, Procedural Sound Design
- 3D Acoustics Modelling (Odeon)
- Pre & Post Music Production
- Audio Signal Flow(Patching,Routing)
- Recording Studio Equipment
- Report and Research Writing

Other Softwares

Final Cut Pro  
Adobe Illustrator  
LaTeX, Office apps

Unreal Engine , Unity  
Wwise

## PROFILE

Born on May 15, 1997. I have always been a music enthusiast and a versatile musician. I am acute and keen on innovative technologies; genuinely excited for the future of audio technology and the implementation of audio in multiple virtual environments. Currently I am continuing the work started with my MSc research project: "Audio-Visual Perception in Interactive Media - Investigating Point of Audition in Game Audio". I am fond of the art of sound design and the importance of sound to enhance the emotional impact of the user experience.

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## LINKEDIN

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## PORTFOLIO - BLOG

https://robertogrilli.home.blog/portfolio-0/

## REFERENCES

Dr. Gavin Kearney

gavin.kearney@york.ac.uk

Prof. Andy Hunt

andy.hunt@york.ac.uk

## SPOKEN LANGUAGES

Italian Native proficiency

English Full professional proficiency

## INTERPERSONAL SKILLS

- Work-Ethic and Resilience
- Accuracy and Self-Management
- Creativity and Flexibility
- Teamwork and Communication
- Positive attitude and Problem Solving
- Stress Management

## INTERESTS

Art

Cooking

Comics & Games

Travelling