## **RODRIGO MIRA**

### Research Scientist at Google DeepMind, ex-Meta, PhD Graduate from Imperial College London

New York City, USA

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### **EDUCATION**

### PhD in Machine Learning Imperial College London

Oct 2019 - July 2023

London, GB

- Focused on applying self-supervised learning and generative modeling to leverage unlabelled audiovisual speech effectively.
- Supervised by Björn Schuller and Maja Pantic (both Professors of AI at Imperial College).
- Published **5 first-author papers**, 8 papers in total, and presented in 3 workshops.
- Published in IEEE Transactions on Cybernetics, CVPR, ICLR, Interspeech, and ICASSP.

# MSc in Advanced Computing Imperial College London

iii Oct 2017 - Oct 2018

London, GB

- Taught courses (9 modules): 68.2 % (Merit) | Master's thesis: 75 % (Distinction)
- Modules included: Dynamical Systems and Deep Learning, Mathematics for Machine Learning, Advanced Statistical Machine Learning and Pattern Recognition, and Reinforcement Learning.
- Thesis was focused on leveraging Reinforcement Learning to create automatic musical composers that consistently adhere to specific genres and styles, which led to a journal publication.

# BSc in Computer Engineering and Information Systems

#### Instituto Superior Técnico

**Sep 2014 - Jul 2017** 

Lisbon, Portugal

- Taught courses (29 modules): 18.00/20
- 3 academic excellence diplomas (one for each academic year).
- Modules included: Artificial Intelligence, Object-Oriented Programming, Databases, and Distributed Systems.

### **LANGUAGES**

English Portuguese Spanish German French



### **EXPERIENCE**

# Research Scientist Google DeepMind

Jul 2025 - Current

NYC, USA

• Working on something new.

### Postdoctoral Researcher

#### Meta

Nov 2023 - Jun 2025

London, GB

- One of the 4 original members of the team that created the facial animation for the Instagram Reels dubbing project. Designed, trained, and deployed a new facial animation model from scratch and helped ship our Alpha and Beta prototypes to production.
- Published 5 papers (NeurIPS 2024, CVPR 2025, Interspeech 2024, ICASSP 2025, and arXiv (under review)).

### Research Intern

#### Sony

**Sep - Nov 2023** 

Tokyo, Japan

- Developed a novel video-to-audio synthesis model for Sony R&D.
- Proposed and organized a workshop on audio-visual generation with my colleagues, later presented at ECCV 2024.

### Research Intern

#### Meta

**i** Jun - Sep 2022

London, GB

Published 2 papers: LA-VocE: Low-SNR Audio-visual Speech Enhancement using Neural Vocoders (ICASSP 2023) and Jointly Learning Visual and Auditory Speech Representations from Raw Data (ICLR 2023).

### Research Intern

### Meta

**Aug** - Dec 2021

London, GB

 Led a new audio-visual speech enhancement project, in collaboration with Meta Reality Labs Audio Research.

# Research Assistant Imperial College London

Feb - Oct 2019

London, GB

• Developed research projects on video-to-speech synthesis and audio-visual self-supervised learning, which led to 2 papers that were later published during my PhD (IEEE Trans. Cybernetics and Interspeech 2021).

### SELECTED PUBLICATIONS

## End-to-End Video-to-Speech Synthesis using Generative Adversarial Networks

**Rodrigo Mira**, Konstantinos Vougioukas, Pingchuan Ma, Stavros Petridis, Björn W. Schuller, Maja Pantic

**IEEE** Trans. Cybern.

2022

## LA-VocE: Low-SNR Audio-visual Speech Enhancement using Neural Vocoders

Rodrigo Mira, Buye Xu, Jacob Donley, Anurag Kumar, Stavros Petridis, Vamsi Krishna Ithapu, Maja Pantic

**ICASSP** 

**=** 2023

#### **SVTS: Scalable Video-to-Speech Synthesis**

Rodrigo Mira, Alexandros Haliassos, Stavros Petridis, Björn W. Schuller, Maia Pantic

Interspeech

**=** 2022

## LiRA: Learning Visual Speech Representations from Audio through Self-Supervision

Pingchuan Ma and **Rodrigo Mira** (equal contribution), Stavros Petridis, Björn W. Schuller, Maja Pantic

Interspeech

**=** 2021

## Leveraging Real Talking Faces via Self-Supervision for Robust Forgery Detection

Alexandros Haliassos, **Rodrigo Mira**, Stavros Petridis, Maja Pantic

CVPR

**=** 2022

#### Jointly Learning Visual and Auditory Speech Representations from Raw Data

Alexandros Haliassos, Pingchuan Ma, **Rodrigo Mira**, Stavros Petridis, Maja Pantic

**ICLR** 

**=** 2023

## Unified Speech Recognition: A Single Model for Auditory, Visual, and Audiovisual Inputs

Alexandros Haliassos, **Rodrigo Mira**, Honglie Chen, Zoe Landgraf, Stavros Petridis, Maja Pantic

NeurlPS

2024

## **KeyFace: Expressive Audio-Driven Facial Animation for Long Sequences via KeyFrame Interpolation**

Antoni Bigata, Michał Stypułkowski, **Rodrigo Mira**, Stella Bounareli, Konstantinos Vougioukas, Zoe Landgraf, Nikita Drobyshev, Maciej Zieba, Stavros Petridis, Maja Pantic

**E** CVPR

**2025** 

## Laughing Matters: Introducing Laughing-Face Generation using Diffusion Models

Antoni Bigata Casademunt, **Rodrigo Mira**, Nikita Drobyshev, Konstantinos Vougioukas, Stavros Petridis, Maja Pantic

**■** BMVC

**=** 2023

### **WORKSHOPS AND TALKS**

# Workshop organizer at ECCV 2024 AVGenL Workshop, ECCV

**Sep 2024** 

Milan, Italy

 One of the organizers for the first edition of the Audio-Visual Generation and Learning (AVGenL) workshop at ECCV 2024.

# Workshop presentation at CVPR 2023 Sight and Sound Workshop, CVPR

**J**un 2023

Vancouver, Canada

 Presented 3 of our group's new research papers (LA-VocE, RAVEn, and Auto-AVSR).

## Conference Poster Presentation ICASSP

**H** Jun 2023

Rhodes, Greece

 Gave a 2-hour poster presentation about our new audiovisual speech enhancement model (LA-VocE), demonstrating our state-of-the-art results.

# Conference Oral Presentation Interspeech

Sep 2022

Incheon, South Korea

 Gave a 20-minute oral presentation about our new scalable video-to-speech model (SVTS), demonstrating our state-ofthe-art results.

# Workshop presentation at CVPR 2022 Sight and Sound Workshop, CVPR

**J**un 2022

New Orleans LA, USA

 Presented our new scalable video-to-speech model (later published in Interspeech 2022).

# Research Presentation with the President of Portugal

#### **Imperial College London**

**i** Jun 2022

London, GB

 Presented a summary of my PhD's research contributions to the president of Portugal, Marcelo Rebelo de Sousa, as well as 50+ other attendees in a special event held at Imperial College London.

## Show & Tell Demo

**May 2020** 

Barcelona, Spain

 Showcased an interactive demo of our video-to-speech synthesis model.