RODRIGO MIRA

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

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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 audio-visual 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

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

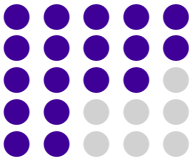
Instituto Superior Técnico

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

Senior 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

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, Maja 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

NeurIPS 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

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

Jun 2023 — Vancouver, Canada

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

Conference Poster Presentation

ICASSP

Jun 2023 — Rhodes, Greece

- Gave a 2-hour poster presentation about our new audio-visual 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-of-the-art results.

Workshop presentation at CVPR 2022

Sight and Sound Workshop, CVPR

Jun 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

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

ICASSP

May 2020 — Barcelona, Spain

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