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Shorbio

I am currently a postdoc on Machine Learning for Immersive Media (VR/360), and my career can be seen threefold. In research, I have contributed to Multimedia & Machine Learning (ML) projects and research committees ([ACM SIGMM](#) and [SBC WebMedia](#)), being especially interested in the intersection of Multimedia and ML aiming at support more natural and QoE-oriented systems. In the industry, I have experienced technology transfer by standards and open-source, and collaboration at industry forums ([ITU-T SG16](#) and [Brazilian TV Forum](#)). In teaching, I have acted as an undergrad lecturer and postgraduate assistant, and I also seek to get involved in public engagement and promote student interests in social impact.

Background

Work Experience

UCL, LASP Lab

Postdoc Researcher on ML project 2021–today

PUC-Rio, TeleMidia Lab

Postdoc Researcher on ML/Multimedia Systems projects 2017–2020

UFPB, Lavid Lab

Research Engineer on Multimedia Systems projects 2012–2013

Dynavideo, TV Division

Part-Time Intern on embedded software 2007–2008

Education

PUC-Rio

PhD. in Informatics. [Multimodal-Multiuser Interactions in Multimedia Languages](#) 2013–2017
Supervisors: Simone Barbosa and Luiz Soares (*in memoriam*). Main impact: used as part of ITU/SBTVD standards

UFPB

MSc. in Informatics. [Multidevice Applications in BroadBandTV](#) 2010–2012
Supervisor: Guido Lemos. Main impact: used as used in the awarded Social Impact Brasil4D project

UFPB

BSc. in Computer Science 2005–2009

Research highlights

Publications

[Google Scholar](#) shows >50 published papers, >100 citations, h-index 6. See below recent and some selected publications.

Elsevier Book Chapter 2022

ACM Multimedia Systems 2022

Springer Journal on Multimedia Tools and Applications 2016, 2020

IEEE Symposium on Multimedia (ISM) 2020

SBC WebMedia 2020, 2020, 2020, 2021, 2021, 2021

ACM Symposium on Document Engineering 2019

IEEE Multimedia Signal Processing 2019

Projects on Machine Learning

- SpheryStream (Funded by EPSRC): Improve 360-video streaming with profile-based methods
- [VideoMR](#) (Funded by RNP and Microsoft): detect inappropriate content in video scenes

- AML – Anti-Money Laundry (Funded by BTG Bank): Classify suspicious money transactions

Projects on Multimedia systems

- PUC-Rio [Ginga](#) reference implementation, funded by PUC-Rio Software Licenses to TV manufacturers
- SBTVD Conformance Test Suite for TV for Ginga implementers
- [GT-RAP](#) (Funded by RNP): blockchain-based authentication of academic certificates
- [GingaAppStore](#) (Funded by RNP): design broadband system to deliver TV applications
- [Art TVDI](#) (Funded by RNP): design agile methods for TV applications development
- [Ginga CDN](#) (Funded by RNP): develop reusable TV middleware components.
- [Brasil4D](#) (Funded by World Bank): design a transmission of social impact TV content to low-income families. Its results were published at a [public report](#)

Awards

- Approved as PI in [VideoMR](#) project (Funded by RNP and Microsoft)* 2019
- Brasil 4D* 2013-2014
- [SET Conference Award](#) for Best TV interactivity solution
- TV Award [Honorable mention in Innovation and Creativity](#)
- FRIDA Award for [innovative TV technological solutions](#)
- GingaStore* 2012
- [ITU IPTV Application Challenge](#) Honorable mention in User-friendliness
- Travel Awards* 2017-2022
- SIGMM Travel Award for MMSys (2022)
- SIGWeb Travel Award for DocEng (2017, 2019)
- SIGHI Gary Marsden Travel Award for IMX (2022)

Committees

ACM

- SIGMM contributor* 2020-today
- Multimedia conference: reviewer (2022), area chair (2022), reproducibility chair (2023)
- Multimedia Systems (ACM MM): MMVE review (2021, 2022, 2023) and demo chair (2022)
- Immersive Experiences(ACM IMX) conference: reviewer (2022) and area chair (2022)
- QoMex conference (ACM QoMEX): reviewer (2023)

Brazilian Computing Society (SBC)

- Multimedia Especial Committee* 2017-today
- [WebMedia](#) conference: Steering Committee (2019-today), reviewer (2013-today), chair of Undergrad workshop (2018), chair of Demos Workshop (2019-today), and chair of Social Impact Workshop (2018-today)

Springer

- Reviewer* 2022-today
- Journal of Multimedia Tools and Applications: reviewer (2022, 2023)
- Iberoamerican Conference on TV Applications and Usability: reviewer (2020, 2021, 2022)

Training

- UCL: Data Protection for Researchers; Fundamentals in Research Funding* 2022-2021
- Nature: Interpreting Scientific Results; Nature Focus on Peer Review* 2022-2023

Industry highlights

Committees

Brazilian TV Forum (SBTVD)

- Academic member at [Techinal Module](#) contributing to [TV middleware standards](#)* 2017-today

International Telecommunication Union (ITU)

- Academic member at [SG-16/Q13](#) contributing to [IPTV middleware standards](#)* 2017-today

Teaching highlights

Experiences

PUC-Rio

Assistant on Multimedia and Machine Learning to postgrad students (>20) 2019

Assistant on TV development (Ginga Brasil, Funded by RNP) to undergrad students (>30) 2013

Japan International Cooperation Agency

Lecturer (and course design) on TV development to South American countries professionals(>20) 2012

RNP ESR

Assistant on Linux Administration to IT professionals (>20) 2011

UFPB

Lecturer (and course design) on Programming Introduction (C language) to undergrad students(>30) 2010

Assistant on Analysis and design of Algorithms to undergrad students (>30) 2008

Public Engagement

Chair of SBC WebMedia award to students researching on Social Impact 2018-today

Brasil 4D project to TV as social impact 2013-2014

Training

UCL Public Engagement workshop 2021

Skills highlights

Programing: Python, TensorFlow, C++, Lua, Java, JavaScript.

Backend: Nodejs, Flask, AWS.

Engineering: Git, Bash, Scrum, Docker, LXC

Languages: Portuguese (mother tongue), English (advanced, SELT certification), and Spanish (advanced).

Social: Good and empathic communication. Positive, make-it-happen, team-work, lead-by-example attitude.

Academic: Scientific and standard writting. Teaching.

References

- Laura Toni <l.toni@ucl.ac.uk>: Postdoc. supervisor at UCL.
- Simone DJ Barbosa <simone@inf.puc-rio.br>: PhD and PostDoc supervisor at PUC-Rio.
- Marcelo Moreno <moreno@ice.ufjf.br>: ITU SG-16/Q13 and SBTVD collaborator.
- Roberto Azevedo <roberto.azevedo@disneyresearch.com>: TeleMidia collaborator.