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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 worked on Video/TV/ML projects and conferences committees (SBC WebMedia and ACM SIGMM), especially interested in supporting more natural and QoE-oriented multimedia systems. In the industry, I have experienced technology transfer by standard/open-source and collaboration at industry forums (Brazilian TV Forum and ITU-T SG16). In teaching, I have acted as an undergrad lecturer and postgrad assistant, also seeking to get involved in public engagement and promote student interests in social impact.

Background

Work Experience

UCL, LASP Lab
Postdoc Researcher   *2021–today*

PUC-Rio, TeleMidia Lab
Postdoc Researcher   *2017–2020*

UFPB, Lavid Lab
Research Engineer   *2012–2013*

Dynavideo, Division for TV products
Part-Time Intern   *2007-2008*

Education

PUC-Rio
PhD. in Informatics. Multimodal-Multiuser Interactions in Video/TV   *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 on TV   *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

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

Projects on video/TV systems

- Ginga PUC-Rio reference implementation, funded by PUC-Rio Software Licenses to TV manufacturers
- 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	*2020-today*

- Multimedia conference: reviewer (2022), area chair (2022), reproductibility 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)	*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	*2022-today*

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

IEEE	*2019-today*

- Multimedia conference: SeMP workshop reviewer (2019)

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)	*2015-today*

- Contributor to standard TV Industry Conformance Test Suite
- Academic collaborator at Tecnical Module for TV middleware standards

Brazilian Broadcast Society (SET)	*2020*

- SET IJBE reviewer (2020)

International Telecommunication Union (ITU)	*2017-today*

- Brazilian collaborator at SG-16/Q13 for IPTV standards

Standards

SBTVD 15606-2: Nested context language (NCL) and Ginga-NCL	*2019*
ITU Recommendation H.761: Nested context language (NCL) and Ginga-NCL	*2015*

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*

Other skills

Techinical (see Github page)
- Opensource maintenance
- Programing: Python, TensorFlow, C++, Lua, Java
- Video: DASH, MPEG2-TS, Gstreamer, FFmpeg
- Frontend: HTML/JS, Flutter, Android, Qt, Unity
- Backend: Nodejs, Flask, AWS, Docker
- Others: Latex, GitHub/Git, scripting/building tools (bash, Autools, CMake, meson), Scrum, Kanban

Social
- Languages: Portuguese (mother tongue), English (advanced, SELT certification), and Spanish (average)
- Positive, make-it-happen, team-work, lead-by-example attitude
- Good/empathic communication and ability to collaborate with international teams

Visa status

- Nationality: Brazilian
- UK visa for working valid until 12/2024 (permanent-employed partner)

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.