Alan Guedes — C.V.

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Shorbio

I am Computer Scientist (PhD & Postdoc), and my career can be seen threefold. In research, I have contributed to projects on Multimedia & Machine Learning (ML) and participated in technical committees (ACM SIGMM and SBC WebMedia). I am currently interested in non-Euclidean ML methods for the next generation of immersive and multimedia systems. Second, I have added value to the industry by contributing to applied projects and standards at industry forums (ITU-T SG16 and BR TV Forum). While in teaching, I acted as an undergrad lecturer and postgraduate assistant. Also, I got involved in public engagement and promoted student interests in social impact.

Experiences

Work

UCL, LASP Lab

Postdoc Researcher on ML project   *2021–today*
Highlights: ACM SIGMM committees and workshop organizer; co-supervised undergrad students.
- SpheryStream, funded by EPSRC, to Improve 360-video streaming with profile-based methods

PUC-Rio, TeleMidia Lab

Postdoc Researcher on ML & Multimedia projects   *2017–2020*
Highlights: project PI; team leader; standards contributions; SBC WebMedia committees and workshop organizer (students for social impact); co-supervised under/postgrad students; postgraduate lecturer assistant.
- VideoMR, funded by RNP and Microsoft to detect inappropriate content in video scenes;
- AML – Anti-Money Laundry, funded by BTG Bank, to detect financial transcations risk and anomaly detection;
- GT-RAP, funded by RNP, to develipe a blockchain-based system for academic certificates;

Dynavideo, TV Division

Software engineer   *2012–2012*
Highlights: multiple awarded social impact project.
- 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

Education

PUC-Rio

PhD. in Informatics. Thesis on Multimodal-multiuser support in multimedia scene descriptions   *2013–2017*
Highlights: thesis used in SBTVD standard; industry committees.
- PUC-Rio Ginga reference implementation, funded by PUC-Rio Software Licenses to TV manufacturers;
- From SBTVD Conformance Test Suite for TV manufacturers

UFPB

MSc. in Informatics. Thesis on Multi-device support in TV app stores   *2010–2012*
Highlights: thesis used in the awarded World Bank funded Brasil4D project; undergraduate lecturer; project leader
- GingaAppStore, funded by RNP, to design broadband system to deliver TV applications;
- Art TVDI, funded by RNP, to design agile methods for TV applications development;

UFPB

BSc. in Computer Science. Final report on Component-based architecture for TV middleware   *2005–2009*
- Ginga CDN, funded by RNP, to develop reusable TV middleware components.
- Tutor on Analysis and design of Algorithms;
- Part-Time software developer at Dynavideo TV Division to prototype TV software in ST boards.

Research

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*

Service on Committees

ACM SIG Multimedia
Reviwer and chairing   *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)

Web and Mulimedia Commitee of Brazilian Computing Society (SBC)
Reviwer and chairing   *2017-today*

- WebMedia conference: Steering Committee (2019-today), reviewer (2013-today), chair of Undergrad workshop (2018), chair of Demos Workshop (2019-2022), and chair of Social Impact Workshop (2018-2022)

Springer
Reviewer   *2022-today*

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

Brazilian TV Forum (SBTVD)
Academic member at Techincal Module contributing to TV middleware standards   *2017-2021*

International Telecommunication Union (ITU)
Academic member at SG-16/Q13 contributing to IPTV middleware standards   *2017-2021*

Teaching

UCL
Co-supervise undergrad engineering projects.   *2022-today*

SBC WebMedia
Organizer of students workshop to promote Social Impact research. *2018-2022*

PUC-Rio
Invited Lecture on ML for Multimedia to postgrad students (>30)   *2019*
Lecturer 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(>30) *2012*

RNP ESR
Lecturer on Linux Administration to IT professionals (>30)   *2011*

UFPB
Lecturer (and course design) on Programming Introduction (C language) to undergrad students(>15) *2010*
Tutor on Analysis and design of Algorithms to undergrad students (>30). *2008*

Funding & Awards

Aproved Funding

Approved as PI in VideoMR project, funded by RNP and Microsoft.   *2019*

Awards

ACM 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)

South America TV associations   *2013-2014*

- SET Conference award on Best TV interactivity solution for Brasil4D project
- Honorable metion on Innovation and Creativity for Brasil4D project
- FRIDA Innovative TV technological solutions award for Brasil4D project

ITU

IPTV Application Challenge User-friendliness for GingaStore   *2012*

Skills

Academic: Execute research agenda. Scientific and standard writting.

Teaching: Course design. Presentation skills.

Programing: Python, TensorFlow, Bash, C++, Lua, Java, JavaScript, Latex, Dcoker.

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

Languages: Portuguese (mother tongue), English (fluent), and Spanish (fluent).

Training

UCL

Data Protection for Researchers; Fundamentals in Research Funding.   *2022-2023*

Nature

Interpreting Scientific Results; Focus on Peer Review.   *2022-2023*

ITU

ITU-T A.1: Working Methods of ITU-T Study Groups   *2023*

References

- Laura Toni, l.toni@ucl.ac.uk. Postdoc supervisor at UCL.
- Simone DJ Barbosa, simone@inf.puc-rio.br. PhD 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.