Alan Guedes — C.V.

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Shorbio

I am a Computer Scientist (Ph.D. & Postdoc) interested in Machine Learning (ML) methods for the next generation of immersive systems and graph-based data. My career can be seen threefold. In research, I worked on research Multimedia & ML projects, contributed to communities (Springer, ACM SIGMM, and SBC WebMedia), and have been awarded research funding. In teaching, I co-supervised students, acted as a lecturer on under- and post-graduate courses, and organized workshops to promote student interest in public engagement. In industry, I added value to it through open source and standards in TV forums (ITU-T SG16 and BR TV Forum). [1]

Experiences

Work

UCL, LASP Lab

Postdoc Researcher on ML project   2021–today
Highlights: ACM SIGMM committees and workshop organizer; co-supervised undergrad students.
- SpheryStream project 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 project, funded by Microsoft & RNP to detect inappropriate content in video scenes;
- AML (Anti-Money Laundry) project, funded by BTG Bank, to detect financial transactions risk and anomaly detection;
- GT-RAP project, funded by RNP, to develop a blockchain-based system for academic certificates.
- SBTVD Conformance Test Suite for Ginga D profile, funded by Brazilian Ministry of Science and Technology, to be used by TV manufacturers

Dynavideo, TV Division

Software engineer   2012–2013
Highlights: multiple awarded social impact projects.
- Brasil4D project, funded by World Bank, to transmit interactive TV content with social features to low-income families. Its results were published in a public report

Education

PUC-Rio

Ph.D. in Informatics. Thesis on Multimodal-multiuser support in multimedia scene descriptions   2013–2017
Highlights: thesis concepts used in SBTVD standard; industry committees.
- PUC-Rio Ginga, funded by PUC-Rio Software Licenses, to develop a reference implementation for TV manufacturers;
- SBTVD Conformance Test Suite for Ginga A/B/C profiles, funded by Brazilian Ministry of Science and Technology, to be used by TV manufacturers

UFPB

MSc. in Informatics. Thesis on Multi-device support in TV app stores   2010–2012
Highlights: thesis concepts used in the awarded Brasil4D project; undergraduate lecturer; project leader
- GingaStore, funded by RNP, to design a 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.

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[1]See certificates at https://alanlivio.github.io/certificates.pdf

Research

Committees

ACM, Special Interest Group on Multimedia
Reviewer 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)

BR Computing Society (SBC), Web&Mulimedia Committee
Steering Committee   *2021-today*

Reviewer and chairing   *2017-today*
- WebMedia conference reviewer (2017-today), chair of Undergrad workshop (2018), chair of Demos Workshop (2019-2022), and chair of Social Impact Workshop (2019-2022)

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 Technical 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*

Training

UCL: Research Supervision; People Management Essentials; Fundamentals in Research Funding; GDPR; Data Protection.

Nature MasterClass: Narrative Tools for Researchers; Focus on Peer Review.

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 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*

Funding & Awards

Microsoft
Approved as PI in VideoMR Grant for video analysis   *2019*
ACM
SIGMM Travel Award for MMSys   *2022*
SIGHI Gary Marsden Travel Award for IMX   *2022*
SIGWeb Travel Award for DocEng   *2019*
TV associations
FRIDA Innovative TV technological solutions award for Brasil4D project   *2014*
SET Conference award on Best TV interactivity solution for Brasil4D project   *2013*
PremioTV on Innovation and Creativity for Brasil4D project   *2013*
ITU
IPTV Application Challenge for GingaStore project   *2012*

Skills

Academic: Execute research agenda. Scientific and standard writing.

Teaching: Course design. Presentation skills.

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

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

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

References

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