Alan Guedes — C.V.

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Highlights

- Computer Scientist with Ph.D. and multiple Postdoc researching ML for Video (360-degree, segmentation, compression) and Multimedia Communication (TV systems, multimedia scene descriptions)
- Google Scholar with 60+ published papers, 160+ citations, h-index 7.
- Awarded with a Microsoft funding (video classification) as Principal Investigator.
- Contributed as reviewer and chair at research communities (ACM MM, ACM MMSys, ACM IMX, Springer MTAP, SBC WebMedia)
- Experienced technology transfer to the TV industry by open source and standards (ITU-T SG16 and TV Forum).
- Co-supervised students and lectured on under- and post-graduate modules.
- Teaching experiences (module design, invited talks) and promoted students' research on social impact.

See certificates here.

Experiences

Work

University College London (UCL)

Postdoc Researcher on ML project at LASP Lab   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.

Pontifical Catholic University of Rio de Janeiro (PUC-Rio)

Postdoc Researcher on ML & Multimedia projects at TeleMidia Lab   2017–2021

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 the Brazilian Ministry of Science and Technology, to be used by TV manufacturers.

Dynavideo

Research engineer at TV Division   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 impact results are available as public report.

Education

Pontifical Catholic University of Rio de Janeiro (PUC-Rio)

Ph.D. in Informatics. Thesis on Multimodal-multiuser support in multimedia scene descriptions   2013–2017

Highlights: thesis used in international standards; participate in industry committees.
- PUC-Rio Ginga implementation, funded by PUC-Rio Software Licenses, to be used by TV manufacturers;
- SBTVD Conformance Test Suite for Ginga A/B/C profiles, funded by the Brazilian Ministry of Science and Technology, to be used by TV manufacturers.

Federal University of Paraiba (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 application development.

Federal University of Paraiba (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

Committees

ACM, Special Interest Group on Multimedia

Reviewer and chairing   *2020-today*
- ACM MM: reviewer (2022, 2023), area chair (2022)
- ACM MMSys: MMVE review (2021, 2022, 2023) and demo chair (2022)
- ACM IMX: reviewer (2022) and area chair (2022)
- 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*

UCL: Personal Tutoring; Diversity and Inclusion; Connected Learning Essentials
LinkdinLearning: Moodle 3.9.

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, Moodle, Presentation skills.

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

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

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