

# Alan Guedes — C.V.

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 [alanlivio](https://medium.com/@alanlivio) •  [alanlivio](https://www.researchgate.net/profile/Alan-Guedes)

## Shorbio

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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](#)).<sup>1</sup>

## Experiences

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### 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.

#### 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 project, 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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<sup>1</sup>See certificates at <https://alanlivio.github.io/certificates.pdf>

## Research

### Publications

Google Scholar shows 40+ 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

### Funding

#### Microsoft Grant

Approved as PI in *VideoMR* project 2019

### 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&Multimedia 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

## Training

UCL: Personal Tutoring; Diversity and Inclusion; Connected Learning Essentials

LinkdinLearning: Moodle 3.9.

## Awards

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### ACM

SIGMM Travel Award for MMSys

2022

SIGHI Gary Marsden Travel Award for IMX

2022

SIGWeb Travel Award for DocEng

2019

### Multiple 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 User-friendliness for GingaStore project

2012

## Skills

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**Academic:** Execute research agenda. Scientific and standard writing.

**Teaching:** Course design. 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:** Portuguese (mother tongue), English (fluent), and Spanish (fluent).

## References

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- 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.