

# Alan Guedes | C.V.

London – UK

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## Shorbio

I am Computer Scientist (PhD & Postdoc), and my career can be seen threefold. First, in research, I have contributed to ML & Multimedia projects and committees ([ACM SIGMM](#) and [SBC WebMedia](#)). And I am currently interested in ML methods, particularly non-euclidean, 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](#)). And 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: EPSRC project; ACM SIGMM committees and workshop organizer; co-supervised undergrad students.

#### 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.

#### Dynavideo, TV Division

*Research Engineer on World Bank funded Brasil4D project* 2012–2012  
Highlights: multiple awarded social impact project.

#### Dynavideo, TV Division

*Part-Time Intern software developer* 2007–2008  
Highlights: prototype TV software in ST boards.

### Education

#### PUC-Rio

*PhD. in Informatics. [Multimodal-multiuser support in markup multimedia languages](#)* 2013–2017  
Highlights: thesis used in SBTVD standard; industry committees.

#### UFPB

*MSc. in Informatics. [Multi-device support in TV app stores](#)* 2010–2012  
Highlights: thesis used in the awarded World Bank funded Brasil4D project; undergraduate lecturer; project leader

#### UFPB

*BSc. in Computer Science* 2005–2009  
Highlights: Algorithms undergraduate tutor.

## 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

## 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
- AML – Anti-Money Laundry (Funded by BTG Bank): Financial risk identification and anomaly detection

## Projects on Multimedia systems

- PUC-Rio Ginga reference implementation, funded by PUC-Rio Software Licenses to TV manufacturers
- SBTVD Conformance Test Suite for TV for Ginga implementers
- 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

SIGMM contributor 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)

### Brazilian Computing Society (SBC)

Multimedia Especial Committee 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

Reviewer 2022-today

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

## Training

### UCL

Data Protection for Researchers; Fundamentals in Research Funding. 2022-2021

### Nature

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

## Industry

## Committees

### 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

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### ITU

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

2023

## Teaching

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### Experiences

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#### PUC-Rio

Lecturer assistant on Multimedia and Machine Learning to postgrad students (>20) 2019

Lecturer 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

Lecturer Assistant on Analysis and design of Algorithms to undergrad students (>30). 2008

### Public Engagement

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Chair of SBC WebMedia workshop to students researching on Social Impact . 2018-today

Brasil4D social impact project to low-income families. 2013-2014

## Skills

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**Languages:** Portuguese (mother tongue), English (advanced, SELT certification), and Spanish (advanced).

**Programing:** Python, Bash, C++, Lua, Java, JavaScript.

**Tools:** GitHub Actions, Docker, CMake, Latex, Docusaurus.

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

**Academic:** Scientific and standard writting. Teaching and presentation skills.

## References

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- 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.