

# Alan Guedes | C.V.

London – UK

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## Summary

I am currently a postdoc on Machine Learning for Immersive Media (VR/360/Volumetric) and my career can be seen threefold. In research, I have worked on Video/TV/ML projects and conferences committees (SBC WebMedia and ACM SIGMM), especially interesting in supporting more natural and QoE-oriented multimedia systems. In the industry, I have experienced technology transfer by standard/open-source and collaboration at industry forums (Brazilian TV Forum and ITU SG16). In teaching, I have acted as an undergrad lecturer and postgrad assistant, also seeking to get involved in public engagement and promote student interests in social impact.

## Education

### UCL, UK

Postdoc at EEE Dep. *Personalized 360-video streaming* 2021–today  
Supervisor: Laura Toni

### PUC-Rio, BR

Postdoc at Informatics Dep. *Immersive MultiSensorial 360-video* 2017–2019  
Supervisors: Simone Barbosa and Sergio Colcher

PhD. in Informatics. *Multimodal-Multiuser Interactions in Video/TV* 2013–2017  
Supervisors: Simone Barbosa and Luiz Soares (*in memoriam*)  
Impact: Considered to be part of SBTVD standards

### UFPB, BR

MSc. in Informatics. *Multidevice Applications on TV* 2010–2012  
Supervisor: Guido L.S. Filho

Impact: used in the awarded Brasil4D WorkBank project  
BSc. in Computer Science 2005–2009

## Research

### Experiences

#### UCL, LASP Lab

Full-time Postdoc 2021–2022

- SpheryStream (Funded by EPSRC): Improve 360-video streaming with profile-based methods

#### PUC-Rio, TeleMidia Lab

Full-time Postdoc 2018–2020

- VideoMR (Funded by RNP and Microsoft): detect inappropriate content in video scenes
- Anti-Money Laundry (Funded by BTG Bank): Classify suspicious transactions
- Ginga-NCL TV standard evolution (Funded by PUC-Rio Software Licenses income)
- GT-RAP (Funded by RNP): blockchain-based authentication of academic certificates

PhD. Student Part-time Research Engineer 2013–2017

- PUC-Rio Ginga (Funded by PUC-Rio Software Licenses): maintenance of Ginga standard reference implementation

#### UFPB, Lavid Lab

Msc. Full-time Research Engineer 2012–2013

- Brasil4D (Funded by World Bank): design a transmission of social impact TV content to low-income families. Its results published at a [public report](#)

MSc. Student Part-time Research Engineer 2009–2012

- GingaAppStore (Funded by RNP): design broadband system to delivery TV applications
- Art TVDI (Funded by RNP): design agile methods for TV applications development

- [Ginga CDN](#) (Funded by RNP): develop reusable TV middleware components.

## Funding

Approved as PI in [VideoMR](#) project (Funded by RNP and Microsoft) 2019

## Committees

ACM 2020-today

- Membership: SIGMM(2020-today) and SIGHCI(2022)
- MM conference (main in the field): reviewer (2022) and area chair (2022)
- MMSys conference: MMVE review (2021, 2022) and demo chair (2022)
- IMX conference: reviewer (2022) and area chair (2022)

Brazilian Computing Society (SBC) 2017-today

- Membership (2017-today), Student Representative (2015-2016)
- [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 2022-today

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

IEEE 2019-today

- SIGSSP Associate
- IEEE Multimedia conference: SeMP workshop reviewer (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)

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

## Publications

[Google Scholar](#) shows >50 published papers, >100 citations, h-index 6. See below recent and some selected publications.

ACM Multimedia Systems 2022

Elsevier Book Chapter 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

## Training

UCL Data Protection for Researchers 2022

Nature Interpreting Scientific Results 2022

Nature Focus on Peer Review 2022

UCL Fundamentals in Research Funding 2021

## Industry

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### Experiences

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#### Brazilian TV Forum (SBTVD)

Contributor to standard TV Industry Conformance Test Suite 2013-2020

#### Dynavideo, Division for TV products

BSc. Student Part-Time Software Developer 2007-2008

- development of TV receivers software

### Committees

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Brazilian TV Forum (SBTVD) 2015-today

- Academic collaborator at [Tecnical Module](#) for TV middleware standards

Brazilian Broadcast Society (SET) 2020

- SET IJBE reviewer (2020)

### Standards

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ITU Recommendation H.761: Nested context language (NCL) and Ginga-NCL 2015

SBTVD 15606-2: Nested context language (NCL) and Ginga-NCL 2019

International Telecommunication Union (ITU) 2017-today

- Brazilian collaborator at [SG-16/Q13](#) for IPTV standards

## Teaching

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### Experiences

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#### PUC-Rio

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

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 America 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

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

### Public Engagement

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

Brasil 4D project to TV as social impact 2013-2014

### Training

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UCL Public Engagement workshop 2021

## Other skills

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#### Technical (see [Github page](#))

- Opensource maintenance
- Programing: Python, TensorFlow, C++, Lua, C#, Java
- Video: DASH,MPEG2-TS, Gstreamer, FFmpeg
- Frontend: HTML/JS, Flutter, Android, Qt, Unity
- Backend: Nodejs, Flask, AWS, Docker
- Others: Latex, GitHub/Git, scripting/building tools (bash, autotools, cmake, meson), Scrum, Kanban

#### Social

- Languages: Portuguese (mother tongue), English (advanced, SELT certification), and Spanish (average)
- Positive, make-it-happen, team-work, lead-by-example attitude
- Good/empathic communication and able to collaborate international teams

## Visa status

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- Nationality: Brazilian
- UK visa for working valid until 12/2024 (permanent-employed partner)

## References

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- Laura Toni <l.toni@ucl.ac.uk>: Posdoc. advisor at UCL.
- Simone DJ Barbosa <simone@inf.puc-rio.br>: Ph.D. and PostDoc advisor ad PUC-Rio.
- Marcelo Moreno <moreno@ice.ufjf.br>: ITU SG-16/Q13 and SBTVD collaborator.
- Roberto Azevedo <roberto.azevedo@disneyresearch.com>: TeleMidia collaborator.