# Alan Guedes | C.V.

London - UK

#### **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

 $\label{eq:highlights:prototype} \ \ TV \ \ software \ \ in \ \ ST \ \ boards.$ 

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

Approved as PI in VideoMR project (Funded by RNP and Microsoft)

2019

Brasil 4D

GingaStore

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

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)**

Mulimedia Especial Commitee

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

Interpreting Scientific Results; Nature Focus on Peer Review.

2022-2023

## Industry

#### Committees

**Brazilian TV Forum (SBTVD)** 

Academic member at Techincal 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

# **Teaching**

Experiences	
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 (>3	30) 2013
Japan International Cooperation Agency Lecturer (and course design) on TV development to South American countries professionals(>20)	) 2012
RNP ESR	2011
Assistant on Linux Administration to IT professionals (>20)	2011
<b>UFPB</b> 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	
Chair of SBC WebMedia workshop to students researching on Social Impact 2	2018-today
Brasil4D social impact project to low-income families	2013-2014

# **Skills**

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

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

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

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

#### References

- Laura Toni <1.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.