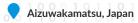
# Juan Camilo Arévalo Arboleda

## Ph.D. student in Computer Science and Engineering



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## Summary

Computer scientist with expertise in audio processing, audio spatialization, extended reality (XR) development, interactive systems, and web development. Experience in international and interdisciplinary research groups. Stands out for excellent performance in programming code and versatility between programming languages and tools.

Interests: Audio spatialization, Research, XR development, and machine learning.



## **Experience**

## **Teaching Assistant**

### **University of Aizu**

**■** Currently −04/2019

- Aizuwakamatsu, Japan
- Assist lectures and exercises of virtual reality, sound and audio processing, C++ programming, computer graphics, introduction to data management, and introduction to multimedia.
- Tasks: Prepare material for lectures, grade undergraduate courses exercises/quizzes, and solve student doubts regarding the course contents.

## Research Assistant

## **Pontifical Javeriana University Cali**

**1**2/2018 -06/2018

Cali, Colombia

- Built an online game "Tramas: parques intercultural," as a didactic tool to promote the intercultural dialogue.
- Perform user validations.
- Server deploy and administration.

#### Internship

#### **University Complutense of Madrid**

**11/2018** 

- Madrid, Spain
- Researched and implemented a tracking map for artwork of artistic heritage value during the Spanish civil war and postwar.
- Server administration.

#### Research Assistant

#### Pontifical Javeriana University Cali

**1**2/2014 -08/2014

Cali, Colombia

• Researched, designed, and implemented an algorithm capable of finding salsa song choruses for the construction of a data set.

## Education

## Ph.D. in Computer Science and Engineering University of Aizu

(expected graduation) 03/2024 -04/2021

Aizuwakamatsu, Japan

Research topic: Audio spatialization, all grades A.

## M.Sc. in Computer Science and Engineering University of Aizu

**a** 03/2021 -04/2019

Aizuwakamatsu, Japan

Research topic: Audio spatialization, all grades A.

## B.Sc. in Computer Science

**Pontifical Javeriana University Cali** 

**1**1/2018 -07/2012

Cali, Colombia

GPA: 3.81/5.0. Program with ABET international accreditation.

# Achievements

Outstanding student research assistantship Granted by the University of Aizu for the period 04/2022-03/2023 due to the performance during the first year of the doctoral program.

## Q 3rd prize in AES student competition: MAT-LAB plugin 2021

International competition to design an audio production VST plugin using MATLAB.

- **Q** Cum Laude baccalaureate in computer sciences Granted by the Pontifical Javeriana University Cali.
- 2 3rd prize in Expo poster REDIS South West Node 2018

Research graduation contest held by 21 undergraduate Computer Science programs institutions in Colombia.

## Ranked 8th in the ACM ICPC South America / North Regional 2016

Member of "PUJC-CodeBreakers" team from 2013 to 2016 (best score at 2016).

## **Publications**

Search author as Camilo Arevalo or with the OR-CID 0000-0002-3505-2092 in Google scholar or Research Gate. 3 journals and 8 conference papers. Relevant papers:

- Virtual Reality Tool for Exploration of Three-Dimensional Cellular Automata.
- Usability and Narrative Geolocation for the Monitoring of Spanish Artistic Heritage.
- Real-time Spatialization via Eigen Decomposition of Head-related Transfer Functions.



## Skills

</>> Programming

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C/C+	+,	/C	#			(6 years)
Pytho	on	l				(6 years)
JavaScript						(4 years)
PHP						(4 years)
R						(4 years)
SQL						(4 years)
Java						(2 years)
Lisp						(2 years)
Ruby						(2 years)

## 

Spanish (Native) English (Fluent) Japanese(Intermediate)

## K Frameworks & tools

Matlab	(5	years
Unity	(5	years
AngularJS	(3	years
Arduino	(3	years
Boostrap	(3	years
MySql	(3	years
NodeJS	(3	years
OpenMP/MPI	(3	years
Pure Data	(3	years
Keras	(2	years
OpenCV	(2	years
Docker	(2	years
React	(2	years

November 6, 2022