

# Renam Castro da Silva

RESEARCHER

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## Education

### Universidade Federal do Rio de Janeiro

Rio de Janeiro, Brasil

#### DOCTOR OF SCIENCE IN ELECTRICAL ENGINEERING

September 2013 - February 2018

- Thesis: Towards Visualization and Searching: A Dual-purpose Video Coding Approach
- Scholarship from Fundação de Amparo à Pesquisa do Estado do Amazonas (FAPEAM)

### Instituto de Telecomunicações

Lisboa, Portugal

#### DOCTORAL STUDENT EXCHANGE PROGRAM

May 2016 - April 2017

- Research on a video coding approach using local visual features
- Scholarship from Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq)

### Universidade Federal do Rio de Janeiro

Rio de Janeiro, Brasil

#### MASTER OF SCIENCE IN ELECTRICAL ENGINEERING

March 2011 - September 2013

- Dissertation in Portuguese: Image Compression using Prediction and Polynomial Approximations
- Scholarship from Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CAPES)

### Universidade do Estado do Amazonas

Manaus, Brasil

#### BACHELOR OF SCIENCE IN MECHATRONIC ENGINEERING

2006 - 2010

## Work Experience

### Samsung R&D Institute Brazil

Campinas, Brasil

#### IMAGE AND VIDEO PROCESSING SPECIALIST

March 2018 - Present

- Research on image and video compression using both engineered and learning-based approaches
- Technical leader in research projects
- Draft patent review committee

### Instituto Nokia de Tecnologia

Manaus, Brasil

#### INTERN

2008 - 2010

- Software development, driver development for RFID reader, fault detection in radio frequency circuits

## Publication

#### MULTI-MODE INTRA PREDICTION FOR LEARNING-BASED IMAGE COMPRESSION

International Conference on Image Processing (ICIP), accepted, 2020.

#### JOINT MOTION AND RESIDUAL INFORMATION LATENT REPRESENTATION FOR P-FRAME CODING

Computer Vision and Pattern Recognition (CVPR) Workshops, Online, June 2020.

#### TOWARDS VISUALIZATION AND SEARCHING: A DUAL-PURPOSE VIDEO CODING FRAMEWORK

IEEE Access, vol. 8, no 1, January 2020.

#### DISTORTION SCALABLE LEARNED IMAGE COMPRESSION

International Workshop on Multimedia Signal Processing (MMSP), Kuala Lumpur, Malaysia, September 2019.

#### FEATURE-BASED VIDEO CODING: DESIGNING AN RD EFFICIENT AND SEARCH FRIENDLY FRAMEWORK

Picture Coding Symposium (PCS), Nuremberg, Germany, December 2016.

#### STUDYING THE COMPRESSION PERFORMANCE OF VIDEO DESCRIPTORS.

Simpósio Brasileiro de Telecomunicações (SBTr), Juiz de Fora, Brasil, September 2015. **Best paper award.**

## Skills & Courses

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<b>Programming/scripting</b>	Matlab, R, python, bash script, c, c++
<b>Miscellaneous</b>	Linux, Docker, Kubernetes, Git, Confluence, Latex, Tensorflow, Opencv, Scrum
<b>Languages</b>	Portuguese (Native), English (Good listening, writing and speaking skills)
<b>Data science course</b>	Data analysis, unsupervised learning, supervised learning and deep learning 100h - Universidade Estadual de Campinas

## Professional membership and awards

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<b>Member</b> , Brazilian expert group on image and multimedia coding	2018-Present
<b>Member</b> , IEEE member, signal processing society	2015-Present
<b>Awarded</b> , Best paper award from Sociedade Brasileira de Telecomunicações	2015

## Technical review

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### IEEE Transactions on Multimedia

#### REVIEWER

- Has served as volunteer reviewer for IEEE Transactions on Multimedia

### IEEE Access

#### REVIEWER

- Has served as a volunteer reviewer for IEEE Access

## Presentation

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### Computer and technology week. Universidade Federal de São Carlos (UFSCar)

Sorocaba, Brazil

#### INVITED SPEAKER

Nov. 2017

- Introduction to image and video compression

### Share Knowledge Day. Samsung R&D Institute Brazil

Campinas, Brazil

#### INVITED SPEAKER

August 2018

- Advances on multimedia signal processing

### Samsung Chat. (NGO) CEPROMM

Campinas, Brazil

#### VOLUNTEER SPEAKER

August 2018

- Researcher career