

# José F. Silva Neto

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## Education and Qualifications

**Federal University of Rio Grande do Norte, Natal, RN, Brazil**  
*Thesis:* Fuzzy Segmentation of Three-Dimensional Objects with Textural Properties  
B.SC, M.Sc, Computer Science, 2009-2015

## Professional Experience

### **First Security Technology, Chur, Switzerland - Remote work**

Software Developer (January/2021 - currently): I am currently working on implementing network security algorithms from the backend perspective while researching Machine Learning strategies for network asset fingerprinting.

### **Eldorado Research Institute, Manaus, AM, Brazil**

Software Developer (August/2020 - December/2020): I was part of the Camera Imaging team, focused on engine development and night vision problems on Motorola Camera Framework. Worked on feature integration, code optimization, and testing. Related tech: C++, Native Android, Machine Learning.

### **Federal University of Minas Gerais, Belo Horizonte, MG, Brazil**

Research Assistant - Laboratory of Computer Vision Robotics (February/2020 - August/2020): I've worked on multimodal movement generation via adversarial learning schemes. As a result of this effort, we published our work in a high tier Computer Graphics journal.

### **Loggi, São Paulo, SP, Brazil**

Trainee (November/2019 - December/2019): Working on the cross-docking team seeking to optimize package distribution according to their delivery route. Backend was Python based by using Django.

### **Federal University of Rio Grande do Norte, Natal, RN, Brazil**

Research Assistant - Imaging, Graphics, and Intelligent Agents research (April/2016 - September/2018): Research in the Computational Vision area focused on image segmentation methods via Deep Learning techniques. During this period I co-supervised an undergraduate student whose capstone work results were published in an international conference.

## Publications

*João P. Ferreira, Thiago M. Coutinho, Thiago L. Gomes, José F. S. Neto, Rafael Azevedo, Renato Martins, Erickson R. Nascimento.* Learning to dance: A graph convolutional adversarial network to generate realistic dance motions from audio. *Computers & Graphics journal*, October 13, 2020.

**José F. S. Neto**, Waldson P. N. Leandro, Matheus A. Gadelha, Tiago S. Santos, Bruno M. Carvalho, Edgar Garduño. Automatic Fuzzy Segmentation of Textural Images using Adaptive Divergence Affinity Functions. Presented at 26th International Conference on Systems, Signals and Image Processing, IWSSIP 2019, Osijek, Croatia, June 05-07, 2019.

Vitor Godeiro; **José F. S. Neto**; Bruno Motta De Carvalho; Julianny Barreto Ferraz; Bruno Santana Da Silva; Renata Antonaci Gama. Chronic Wound Tissue Classification using Convolutional Networks and Color Space Reduction. Presented at 28th IEEE International Workshop on Machine Learning for Signal Processing, MLSP 2018, Aalborg, Denmark, September 17-20, 2018.

Bruno M. Carvalho ; Edgar Garduño ; Tiago S. Santos ; Lucas M. Oliveira ; **José F. S. Neto** . Fuzzy segmentation of video shots using hybrid color spaces and motion information. Pattern Analysis and Applications (Print), v. 17, p. 013-0359-1, 2013.

## Internship

**National Laboratory for Scientific Computing, Petropolis-RJ. July 2009** Development of a Multithread Library System (C++ and Windows) for a Remote Rendering Project. Advisor: Selan Rodrigues dos Santos. Supervisor: Jauvane Cavalcante de Oliveira.

## Teaching

*Algorithms and Data Structures.* (2009 - 2010) - Taught weekly discussion sessions for 2 classes (40 students in total) - Instructed students with C++ projects UFRN. Supervisor: Selan Rodrigues dos Santos.

*Elements of Mathematics for Computer Science.* Fall 2013 - Taught Combinatorial Analysis and Probability for 1 class (30 students in total) - Elaborated materials and classes about these topics. UFRN. Supervisors: Bruno Motta de Carvalho and João Marcos de Almeida.

*Game Development with XNA - Summer School.* UFRN, 2011 - Course of 2 weeks for a class with 40 students - 2D Side Scroller development - 3D Fundamentals (Camera Development, Local Illumination and HLSL)

*Tutoring Education Program(PET)*

In this program we executed teaching activities (such as minicourses, lectures, teaching assistance), research (undergraduate research as volunteers) and extension activities outside the University.

## Computer Skills

**Main Skills:** Algorithms and Data Structures, Computer Graphics, Image Processing.

**Languages:** C/C++, Python, C#, Java, Lua (Moai), JavaScript, Matlab.

**Libraries/APIs:** : OpenGL, Numpy, Qt, Pytorch.