José F. Silva Neto

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Education and Qualifications

- **M.S.**: Computer Science, focusing on Image Processing and Graphics. August 2012 to October 2014
  Institution: Federal University of Rio Grande do Norte - UFRN
  Advisor: Bruno Motta de Carvalho.
  Dissertation: Fuzzy Segmentation of Three-Dimensional Objects with Textural Properties.
- **B.S.**: Computer Science. February 2009 to August 2012
  Institution: Federal University of Rio Grande do Norte - UFRN
  Capstone project: Texture Fuzzy Segmentation using Adaptive Affinity Functions and Skew Divergence.
- 1st place among 229 students that applied to the Computer Science course at UFRN in the year of 2009

Computer Skills

Main Skills: Computer Graphics, Image Processing, Computer Vision.

Languages: C/C++, Python, C#, Java, Lua, Matlab.

Libraries: : OpenGL, OpenCV, Numpy.

Publications

José F. S. Neto, *Waldson P. N. Leandro, Matheus A. Gadelha, Tiago S. Santos, Bruno M. Carvalho, Edgar Garduño*. Texture Fuzzy Segmentation using Skew Divergence Adaptive Affinity Functions **(to be submitted)**

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.

Research Experience

- **Point clouds 3D descriptors. (2017)** Working on a 3D descriptor method based on statistics obtained via binary splitting planes. UFRN. Advisor: Bruno Motta de Carvalho.
- **Ulcer Segmentation and Classification. (2017)** Developing a method for ulcers segmentation based on their textural properties. UFRN. Advisor: Bruno Motta de Carvalho.
- **Automatic texture segmentation. (2017)** Developed a method to automatically choose the seeds for our semi-automatic texture segmentation algorithm. UFRN. Advisor: Bruno Motta de Carvalho.

- **Fuzzy Segmentation of Three-Dimensional Objects with Textural Properties. (2012-2014)** Extended the MOFS algorithm in order to achieve three-dimensional texture segmentation. Performed experiments with synthetic and real data obtained from the Multimodal Brain Tumor Segmentation dataset from the Medical Image Computing and Computer Assisted Intervention(MICCAI) Conference 2012. UFRN. Advisor: Bruno Motta de Carvalho.
- **Texture Fuzzy Segmentation using Adaptive Affinity Functions and Skew Divergence. (2011-2012)** Capstone project of my bachelor in Computer Science. This work discusses how affinity functions can be used as texture descriptors, presenting a fuzzy segmentation algorithm that employs the Skew Divergence and the Gaussian Distribution as affinity functions, comparing the results obtained using these approaches. UFRN. Advisor: Bruno Motta de Carvalho.
- **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, 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.