

Felipe Codevilla Moraes

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EDUCATION

Computer Engineering: Federal University of Rio Grande (FURG), Rio Grande, Brazil. **2008-2012**
Final Grade 85.6%

MSc Computer Engineering: Federal University of Rio Grande (FURG), Rio Grande, Brazil. **2013-2014**
Final Grade A

RESEARCH AND INDUSTRY EXPERIENCE

Research Job: Underwater Computer Vision, FURG, with Silvia Botelho **2015**
Proposed a new dataset to analyse feature detectors for underwater environments.

Research Internship: Image Classification, Universitat de Girona, Spain, with Nuno Gracias **2014**
Proposed a **novel method** to include spatial context for image classification based on probabilistic models.

Research Internship: Image Restoration, FURG, with Silvia Botelho **2012**
Proposed a novel method for underwater images restoration.

Industry Internship: Residential Automation, Globosense, with Marcelo Pias **2012**
Mainly contributed by the planning and programming of a residence video monitoring system (Python).

Research Internship: Parallel Programming, CUDA, FURG with Nelson Duarte **2011-2012**
Proposed a novel parallel version for the Kohonen Maps Algorithm. The new version is **44-440x faster** than CPU.

Research Internship: Robotics, Furgbol, FURG, with Silvia Botelho **2008-2011**
Worked developing and planning the software C++ architecture for a robot football team (RoboCup).

Research Internship: Computer Graphics, FURG, with Silvia Botelho **2008-2010**
Designed a texture mapping and animation software for a game engine (C++).

PUBLICATIONS

Felipe Codevilla, Joel O. Gaya, Nelson Duarte, Silvia SC. Botelho, Achieving Turbidity Robustness on Underwater Images Local Feature Detection, **British Machine Vision Conference (BMVC)**, 2015, **(Accepted for publication)**.

Felipe Codevilla, Silvia SC. Botelho, Nelson Duarte, Samuel Purkis, ASM Shihavuddin, Rafael Garcia and Nuno Gracias, Geostatistics for Context-Aware Image Classification, **International Conference on Computer Vision Systems (ICVS)**, 2015.

Felipe Codevilla, Silvia Botelho, Paulo Drews, Joel de Oliveira Gaya and Nelson Duarte Filho, Underwater Single Image Restoration Using Dark Channel Prior In: Navcomp, 2014.

P. Drews, E. do Nascimento, Felipe Codevilla, Silvia Botelho and Mario Campos. Transmission estimation in underwater single images., 2013 **IEEE International Conference on Computer Vision Workshops (ICCVW)**.

Felipe Codevilla, Joel D.O. Gaya, Silvia Botelho and Nelson Duarte Filho, Parallel High Dimensional Self Organizing Maps Using CUDA In: **IEEE Latin American Robotics Symposium and Brazilian Robotics Symposium**, 2012.

SKILLS

Languages: Portuguese, English (Fluent), Spanish (Intermediate).

Programming Languages and Tools: C++, Matlab, Python, OpenCV, CUDA , Linux and CRF/MRF models.

AWARDS

National Institute of Science and Technology (INCT) scholarship	2015
National Petrol Agency (ANP) scholarship	2013
National Council for Scientific Development (CNPQ) scholarship	2010-2012
Latin American Robotics Competition - Small Size League - Third Place.	2012
Brazilian Robotics Competition - Small Size League - Second Place.	2011
Brazilian Robotics Competition - Small Size League - Second Place.	2010