

FORMAL EDUCATION/ACADEMIC DEGREES

PERIOD	July 2009 — December 2014	
DEGREE	Bachelor in Computer Science	
UNIVERSITIES	The State University of Santa Cruz	Ilhéus, Brazil
	Algoma University	Sault Ste Marie, Canada
EXCHANGE	Science Without Borders - 1.5 year scholarship from the Brazilian Government.	

- Three years as **Student Researcher** sponsored by Research Support Foundation of the State of Bahia – FAPESB.
- **Theses in Computer Science:** Parallel Processing Using Hybrid Techniques for Applications in Transport of Particles based on Monte Carlo method. Technologies: NVIDIA CUDA, OpenMP e MPI.
- **EasyKanban (2012).** Web-based application for project management. *Awarded First Prize in Computer Science Software Engineering Class Contest.*
- **Wrote Application for compressing and encrypting text files** using Huffman algorithm which can reduce file's size up to 60%. *Awarded First Prize in Computer Science Programming Class Contest, (2010).*
- **Awarded First Prize in Computer Science AI class tournament** for multi-agent combat using the Gun-Tactx Platform.

COMPLEMENTARY EDUCATION

PERIOD	April 2016 — September 2016	
DEGREE	Udacity Machine Learning Engineer Nanodegree - Code available on github	

- Designed and developed various Deep Convolutional Network model for recognizing sequences of digits on street view images. Deployed several techniques for dataset synthetically increase and analysis.
- Applied reinforcement learning to build a simulated vehicle navigation agent. This project involved modeling a complex control problem in terms of limited available inputs, and designing a scheme to automatically learn an optimal driving strategy based on rewards and penalties.
- Reviewed unstructured data to understand the patterns and natural categories that the data fits into. Used multiple algorithms and both empirically and theoretically compared and contrasted their results. Made predictions about the natural categories of multiple types in a dataset, then checked these predictions against the result of unsupervised analysis.
- Investigated the factors that affect a student's performance in high school. Trained and tested several supervised machine learning models on a given dataset to predict how likely a student is to pass. Selected the best model based on relative accuracy and efficiency.
- Built a model to predict the value of a given house in the Boston real estate market using various statistical analysis tools. Identified the best price that a client can sell their house utilizing machine learning.

PERIOD	2013 — 2014	
DEGREE	English as a Second Language (ESL)	
UNIVERSITY	Algoma University	Sault Ste Marie, Canada
SCHOLARSHIP	Science Without Borders	

- 3 months English course as part of my split-site undergraduate program in Computer Science granted by The Brazilian National Council for Scientific and Technological Development - CNPq.

PERIOD	2010 - 2010	
DEGREE	Programming for High Performance Platforms	
UNIVERSITY	The State University of Santa Cruz	Ilhéus, Brazil

- Developed many parallel programs using (OpenMP, and MPI) aimed to extract the maximum performance from the Data Storage and Advanced Computing platform (<http://nbcgib.uesc.br/cacau/>).

PERIOD	2010 - 2010	
DEGREE	Linux Study Group	
UNIVERSITY	The State University of Santa Cruz	Ilhéus, Brazil

- Gave some presentations on some of the basics Linux concepts in the first University group devoted to learn Linux.

RESEARCH PROJECTS

PERIOD	2010 - 2013	
UNIVERSITY	The State University of Santa Cruz	Ilhéus, Brazil
ADVISOR	Esbel Tomás Valero Orellana	CV: http://lattes.cnpq.br/8384020879567133
FUNDING	Research Support Foundation of the State of Bahia – FAPESB	
INSTITUTION		

- **Title** - Parallel processing on high performance stations applied to particle transport simulation using the Monte Carlo method (*2012 - 2013*).
- **Title** - Parallel processing using Graphics processing units(GPUs) applied to particle transport simulation with the Monte Carlo method (*2011 - 2012*).
- **Title** - Parallel implementations for Random Walk Algorithms - **Volunteer** (*2010 - 2011*).

AREAS OF EXPERTISE

1. Deep Learning.
2. Artificial Intelligence / Machine Learning.
3. High Parallel Computing.

PRODUCTIONS/PRESENTATIONS IN EVENTS

PERIOD	2011 - 2013	
UNIVERSITY	The State University of Santa Cruz	Ilhéus, Brazil
ADVISOR	Esbel Tomás Valero Orellana	CV: http://lattes.cnpq.br/8384020879567133
KEYWORDS	Random Walk, CUDA, OpenMP, MPI	

- **Parallel implementations of Random Walk Algorithm**
The State University of Santa Cruz - UESC - XVIII Scientific Seminar (2012).
- **Parallel implementations of Random Walk Algorithm**
The State University of Santa Cruz - UESC - Computer Week (2011).

WORK EXPERIENCE

PERIOD	May 2015 — Currently	
EMPLOYER	Eldorado Institute of Technology	Campinas, Brazil
POSITION	Software Engineer Jr	
LANGUAGES	C#, C++, JavaScript	

- Maintained an effective and constant interaction with project's customers.
- Participated in projects under the Scrum methodology.
- Contributed to some of the most relevant projects in the field of image processing.
- One of the contributors of the internal Machine Learning research group.

PERIOD	May 2014 — November 2014	
EMPLOYER	Great Lakes Forestry Centre	Sault Ste Marie, Canada
POSITION	Researcher Junior	
LANGUAGES	R, Linux Shell Script	

- Led implementation of the R *opentraj* package for creating and analyzing air trajectory data which was the main computational tool for a research project on insects' transportation.
- Wrote scripts for executing the *Hybrid Single Particle Lagrangian Integrated Trajectory Model* (HYSPLIT) software in order to access its results from within R.

PERIOD	March 2012 — June 2013 (Part Time)	
EMPLOYER	RCS Informática	Itabuna, Brazil
POSITION	Software Developer	
LANGUAGES	Delphi, HTML5, CSS3, JavaScript, PHP, MySQL	

- Developed and debugged software, such as Protocol System, Accounting System, and Daily Management System which led to a percent increase of 8% in revenue.
- Redesigned the Enterprise's website leading to a 20% reduction in customer supporting calls.
- Debugged existing software plug-ins for user management and report generation.

PERIOD	2010 — 2010 (Part Time)	
EMPLOYER	TecnoJr - junior enterprise	UESC - Ilhéus, Brazil
POSITION	Software Developer (Trainee)	<i>Volunteer</i>

- Learned the basics regarding software development life circle ranging from the first contact with a client to the software architecture definition and implementation.

PARTICIPATION IN EVENTS

1. **XVIII UESC Scientific Seminar, 2012.** (*Symposium*)
2. **High Performance Computing, 2011.** (*Workshop*)
3. **Bahia/Alagoas/Sergipe Computing Regional School, 2011 (XI ERBASE).** (*Congress*)
4. **Regional School of High Performance Computing (I ERAD), 2011** (*Congress*)
5. **Robots virtualization, 2011** (*Workshop*)
6. **X Computer Week at the State University of Santa Cruz, 2010** (*Congress*)
7. **High Performance Computing, 2010** (*Workshop*)
8. **IX Semana de Informática da UESC, 2009** (*Congress*)

EXTRACURRICULAR ACTIVITIES

- Udacity - 6 computer science courses ranging from High Performance Computing, to Deep Learning and Artificial Intelligence. (certificates available upon request)
- Coursera - University of California, Santa Cruz , C++ for C Programmers
- Achieve Languages - English Course (2010 — 2013)

SKILLS

LANGUAGES	C; C++; C#, Java; R; HTML; PHP; Python; SQL; CUDA; OpenMP; MPI;
DATA BASES	MySQL, PostgreSQL, Oracle Enterprise Edition;
TECHNOLOGIES	Jupyter Notebooks; SVN; Git; Visual Studio
CERTIFICATIONS	JavaScript;
OPERATING SYSTEMS	Linux; MAC OS; Windows;
FRAMEWORKS AND LIBRARIES	AngularJS, KnockoutJS, TensorFlow, Sklearn

LANGUAGES

- English and Portuguese

REFERENCES

- **Dr Jean-Noel Candau**, Scientist, Great Lakes Forestry Centre, Sault Ste Marie, Ontario, Canada. *Jean-Noel.Candau@NRCan-RNCan.gc.ca*
- **Dr Esbel Tomás V. Orellana**, Teacher, The State University of Santa Cruz, Ilhéus, Brazil. *valero.esbel@gmail.com*
- **Mydiã Falcão Freitas**, Software Engineer, RCS Informática, Itabuna, Brazil. *mydyfreitas@gmail.com*