Thalles Santos Silva

Education

Period	**July 2009 — December 2014**
Degree	**Bachelor in Computer Science**
University	**The State University of Santa Cruz** Ilhéus, Brazil
Course Work	Operating Systems; Data Bases; Algorithms; Programming Languages; Computer Architecture; Statistics; Calculus; Parallel Processing

Period	**July 2013 — May 2014**
Degree	**Bachelor in Computer Science**
University	**Algoma University** Sault Ste Marie, Canada
Exchange	**Science Without Borders** - Brazilian Government.

- **Theses in Computer Science:** Parallel Processing Using Hybrid Techniques for Applications in Transport of Particles based on Monte Carlo method. This work emphasizes the benefits of implementing parallel scientific applications using NVIDIA CUDA, OpenMP and MPI over common serial applications. Technologies: NVIDIA CUDA, OpenMP e MPI.

- **EasyKanban (2012)**. Web-based application for project management; Built-in Features: create and manage tasks, create and manage projects, identify bottlenecks in the development process. Technologies: HTML5, CSS3, SQL, JavaScript, PHP, AJAX. *Awarded First Prize in Computer Science Software Engineering Class Contest.*

- **Application for compressing and encrypting text files** using Huffman algorithm which can reduce the file's size by 60%. *Awarded First Prize in Computer Science Programming Class Contest,* (2010).

Work Experience

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.

- Developed shell scripts for running existing software, such as *Hybrid Single Particle Lagrangian Integrated Trajectory Model* (HYSPLIT), without its GUI interface in order to redirect its results into the R environment.

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

- Developed and tested software, such as Protocol System, Accounting System, and Daily Management System, which led to a percent increase of 5% in revenue.

- Redesigned the Enterprise's website which led to a decreasing in the site' loading and processing by making asynchronous calls to the server and maximizing the work done on the client side, leading to a 20% reduction in custumer support calls.

- Wrote SQL scripts for retrieving data from FireBird databases to Delphi applications.

- Debugged and tested existing software plug-ins for user management and report generation.

PERIOD	**July 2010 — July 2013 (Part Time)**
EMPLOYER	**The State University of Santa Cruz** Ilhéus, Brazil
POSITION	**Student Researcher**
LANGUAGES	**C/C++, Shell Script, NVIDIA CUDA, OpenMP, MPI**

- Student Researcher sponsored by Higher Education Personnel Training Coordination (CAPES).

- Used the GNU Compiler Collection (GCC) and its directives for developing and optimizing serial programs up to 1.6 times more efficient than common implementations.

- Developed hybrid parallel programs for particles transport simulation using OpenMP and MPI libraries up to 16 times more efficient than optimized serial implementations.

- Implemented parallel programs using NVIDIA CUDA up to 2 times more efficient than the versions with OpenMP and MPI.

EXTRACURRICULAR ACTIVITIES

- **English as a Second Language (ESL)**, Algoma University intensive English Course - (2013) *http://www.algomau.ca/esl/*.

- **Introduction to Computer Science Building a Search Engine**, Udacity, *www.udacity.com/course/cs101*.

- **Introduction to Parallel Programming using NVIDIA C/C++ CUDA**, Udacity, *https://www.udacity.com/course/cs344*.

- **C++ for C Programmers**, Coursera and University of California, Santa Cruz, *https://www.coursera.org/course/cplusplus4c*.

- **Getting Started with GIS**, ESRI, *http://www.esri.com/training/main*, (ArcGIS 10.0).

- **Achieve Languages**, English Course - (2009-2011).

Skills

Languages	C; C++; Java; R; HTML; PHP; JavaScript; Python; SQL; CUDA; OpenMP; MPI;
Data Bases	MySQL, PostgreSQL, Oracle Enterprise Edition;
Technologies	XCode; Eclipse; NetBeans; SVN; Git;
Certifications	JavaScript
Operating Systems	Linux; MAC OS; Windows;

Languages

- English
- Portuguese

Interests

High Performance Computing, Linux, Big Data, Programming Languages, Machine Learning, Software Development.

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 Valero Orellana**, Teacher, The State University of Santa Cruz, Ilhéus, Bahia, Brazil. *valero.esbel@gmail.com*

- **Mydiã Falcão Freitas**, Software Engineer, RCS Informática, Itabuna, Bahia, Brazil. *mydyfreitas@gmail.com*