

CURRICULUM VITÆ

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Associate Professor

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1 Education

(2010–2014) Ph.D., Computer Science, *cotutelle* agreement between:

- Federal University of Rio Grande do Sul (UFRGS), Brazil.
- Grenoble University, Grenoble, France.

(2007–2009) M.S, Computer Science, Federal University of Rio Grande do Sul (UFRGS) , Brazil.

(2003–2007) B.S, Computer Science, Federal University of Santa Maria (UFSM), Brazil.

2 Areas of Interest

High performance computing, accelerators, parallel programming, scheduling, energy efficiency, operating systems, cluster computing, system administration.

3 Experience

3.1 Teaching

- (07/2014 – current) Associate Professor at the Federal University of Santa Maria (UFSM), Santa Maria, RS, Brazil.

3.2 Research

- (3/2015 – current) Advisor at the Graduate Program in Computer Science at UFSM (master course).
- (03/2012 – 02/2013) Research at Laboratoire d’Informatique de Grenoble, Grenoble University, France, supported by CAPES/Brazil scholarship.
- (03/2010 – 02/2011) Research at Instituto de Informática, UFRGS, Brazil, supported by CNPq/Brazil scholarship.
- (09/2010 – 02/2011) Research at Laboratoire d’Informatique de Grenoble, Grenoble University, France, supported by Erasmus Mundus EBWII scholarship.
- (04/2009 – 02/2010) Research at Instituto de Informática, UFRGS, Brazil, supported by CNPq/Brazil scholarship in project *Massive Atmosphere*.
- (03/2007 – 03/2009) Research at Instituto de Informática, UFRGS, Brazil, supported by CAPES/Brazil scholarship, working on granularity of MPI-2 dynamic programs with processes and threads at runtime.

3.3 System Administrator

- (08/2005 – 02/2007) System administrator at Núcleo de Ciência da Computação (NCC), UFSM, supported by PRAE/UFSM and CPD/UFSM.

3.4 Employment

- (09/2003–07/2005) CPD/UFSM SIE application and report development in Delphi.

4 Awards

- First Place at the 6th Marathon of Parallel Programming - SBAC-PAD 2011 (SBC), Brazil.
- First Place at the 2nd GPU Programming Contest - SBAC-PAD 2011 (SBC), Brazil.
- Erasmus Mundus Euro Brazilian Windows II (EBWII) scholarship for 6 months (09/2010–02/2011), European Commission.

5 Teaching

I teach mainly programming lectures at the undergraduate course of Computer Science at UFSM since 2014.

- ELC1035 - Prática em Sistemas Operacionais (*Operating System Practice*), 2nd semester 2016, 4 hours peer week.
- ELC1067 - Laboratório de Programação II, 2nd semester 2016, 4 hours peer week.
- ELC1067 - Laboratório de Programação II, 1st semester 2016, 4 hours peer week.
- ELC106 - Lógica e Programação, 1st semester 2016, 4 hours peer week.
- ELC1066 - Estruturas de Dados “A”, 2nd semester 2015, 4 hours peer week.
- ELC106 - Lógica e Programação, 2nd semester 2015, 4 hours peer week.
- ELC1068 - Pesquisa e Ordenação de Dados “A”, 1st semester 2015, 4 hours peer week.
- ELC1067 - Laboratório de Programação II, 1st semester 2015, 4 hours peer week.
- ELC1067 - Laboratório de Programação II, 2nd semester 2014, 4 hours peer week.
- ELC137 - Sistemas de Informação Distribuídos, 2nd semester 2014, 4 hours peer week.

6 Supervision

6.1 Master students

- Daniel Di Domenico (2015–): High level parallel programming models for accelerators.
- Bruno Moka Muenchen (2016–): Undefined title.
- Gabriel Freytag (2016–): Undefined title.

6.2 Undergraduate students

- Rafael Gauna Trindade (2016–): C++ Programming Interfaces for Scientific Applications.
- Pedro Langbecker Lima (2015–2016): Scientific Applications using OpenMP 4.

7 Software

1. **GitHub** Web site: <https://github.com/joao-lima>.
2. **XKaapi** I have been involved in the development of the XKaapi runtime system since 2010.
Web site: <http://kaapi.gforge.inria.fr>.

8 Publications

Google scholar link: <https://scholar.google.com.br/citations?user=jb6bKmoAAAAJ>

8.1 Internacional peer-reviewed journal

- João V. F. Lima, Thierry Gautier, Vincent Danjean, Bruno Raffin, and Nicolas Maillard. “Design and Analysis of Scheduling Strategies for Multi-CPU and Multi-GPU Architectures”. *Parallel Computing*, p. 37-52, 2015.
- João V. F. Lima, Nicolas Maillard. “Online mapping of MPI-2 dynamic tasks to processes and threads”. *International Journal of High Performance Systems Architecture (IJHPSA)*, v. 2, pp. 81-89, 2009.

8.2 Internacional peer-reviewed conference proceedings

- Raphaël Bleuse, Thierry Gautier, João V. F. Lima, Gregory Mounie, and Denis Trystram. “Scheduling data flow program in XKaapi: A new affinity-based algorithm for heterogeneous architectures”. *Proc. of the 20th Euro-Par*, 2014, Porto, Portugal.
- João V. F. Lima, François Broquedis, Thierry Gautier, and Bruno Raffin. “Preliminary Experiments with XKaapi on Intel Xeon Phi Coprocessor”. *25th International Symposium on Computer Architecture and High Performance Computing (SBAC-PAD)*, Porto de Galinhas, Brazil, 2013.
- Thierry Gautier, João V. F. Lima, Nicolas Maillard, and Bruno Raffin. “XKaapi: A Runtime System for Data-Flow Task Programming on Heterogeneous Architectures”. *2013 IEEE 27th International Symposium on Parallel Distributed Processing (IPDPS)*, p. 1299–1308, 2013.
- Thierry Gautier, João V. F. Lima, Nicolas Maillard, and Bruno Raffin. “Locality-Aware Work Stealing on Multi-CPU and Multi-GPU Architectures”. *6th Workshop on Programmability Issues for Heterogeneous Multicores (MULTIPROG)*, p. 51–62, Berlin, Germany, 2013.
- João V. F. Lima, Thierry Gautier, Nicolas Maillard, and Vincent Danjean. “Exploiting Concurrent GPU Operations for Efficient Work Stealing on Multi-GPUs”. *24th International Symposium on Computer Architecture and High Performance Computing (SBAC-PAD)*, p. 75–82, New York, NY, USA, 2012.
- Marco A. Z. Alves, Márcia C. Cera, João V. F. Lima, Nicolas Maillard, and Philippe O. A. Navaux. “Enhancing Energy Efficiency using Efficient Parallel Programming Techniques”.

3o Conferencia Latino Americana de Computación de Alto Rendimiento (CLCAR 2010), p. 117–124, Gramado, Brazil, 2012.

8.3 Other conference proceedings

- Márcia C. Cera, João V. F. Lima, Nicolas Maillard, and Philippe O. A. Navaux. “Challenges and Issues of Supporting Task Parallelism in MPI”. *17th European MPI Users’ Group Meeting (EuroMPI 2010)*, p. 302–305, Stuttgart, Germany, 2010.