PERSONAL INFORMATION

Ricardo Henrique Gracini Guiraldelli

📍 37135 Verona (Italy)

🌐 http://ricardo.guiraldelli.com

Sex Male | Date of birth 10 Mar 1986 | Nationality Brazilian, Italian

PERSONAL STATEMENT

Computer engineer with focus on research and development activities. Extensive background in the intersection of both formal (theoretical computer science and discrete mathematics) and life sciences (bioinformatics and biomedical engineering). Communicative, excels at team work.

EDUCATION AND TRAINING

1 Jan 2013–Present — Philosophiae doctor in computer science
EQF level 8

Università degli Studi di Verona, Verona (Italy)

- Thesis proposal: **"Theory and Applications of Computationally Universal Metabolic P Grammars"**.
  - □ Advisor: Prof. Dr. Vincenzo Manca.
  - □ Keywords: metabolic computing, computability, compilers, digital circuits, simulation.
- Research internship at Vilnius Gediminas Technical University
  - □ Advisor: Prof. Dr. Dalius Navakauskas.
  - □ Period: March 31st, 2014 to September 30th, 2014.

9 Feb 2009–9 Apr 2012 — Scientiae magister in electrical engineering
EQF level 7

Universidade de São Paulo, São Paulo (Brazil)

- Thesis: **"Algorithmic Graph Unification and Simulations for Haplotype Networks"**.
  - □ Advisor: Prof. Dr. Ricardo Luis de Azevedo da Rocha.
  - □ Keywords: graph theory, bioinformatics, phylogenetics, population genetics, adaptive computing, systems simulation.

1 Feb 2004–7 Jan 2009 — Computer engineer
EQF level 6

Universidade de São Paulo, São Paulo (Brazil)

- GPA: 7.34/10.00
- Thesis: **"Academic F2F Network"** (in Portuguese).
  - □ Advisor: Prof. Dr. Graça Bressan.
  - □ Keywords: computer networks, collaborative systems, distributed systems.

WORK EXPERIENCE

3 Nov 2011–3 Dec 2012 — Software designer and analyst

FDTE — Foundation for the Technological Development of Engineering, São Paulo (Brazil)
http://www.fdte.org.br

- Research and development of operational research techniques for semi-automatic scheduling and transportation on gas & oil pipeline networks.

- Development of discrete simulation software for the operational logistics of gas & oil products.
- Development of XML-based automatic testing tool.
- Graphical user-interface development for the scheduling software of resources and equipments in gas & oil exploration.
- Application of both software development and quality assurance techniques and tools.
- Principal quality assurance professional.

9 Sep 2009–18 Dec 2010	**College lecturer**

"Nossa Senhora da Assunção" College, São Paulo (Brazil)
http://www.unifai.edu.br/

- Lecturer (parallel studies project) for the computer engineer and science bachelor on the courses:
  - □ formal languages and automata theory;
  - □ computer architecture and digital circuits;
  - □ programming languages;
  - □ computer networks.

4 Nov 2010–17 Dec 2010	**College lecturer**

"Carlos Drummond de Andrade" College, São Paulo (Brazil)
http://www.drummond.com.br/

- Lecturer for the computer engineer and science bachelor on the courses:
  - □ artificial intelligence,
  - □ compilers;
  - □ algorithmic complexity.

12 Jan 2009–30 Jun 2010	**Research and development engineer**

Philips Healthcare (formerly Dixtal), São Paulo (Brazil)
http://www.dixtal.com.br/

- Development of algorithms for non-invasive measurement of blood pressure.
- Research of methods for the improvement in measuring low blood-pressure such as neonates and elderly patients.
- Principal developer for hemodynamics and anesthetics measurements.
- Project leader for the anesthetics gases analyzer module.

6 May 2008–22 Aug 2008	**Co-op intern**

Tecnnological Center of the Brazilian Navy, São Paulo (Brazil)
https://www.mar.mil.br/ctmsp/

- Development and maintenance of simulator for training and testing frigates, using technologies as programmable logic controllers (Ladder), Cicode, Perl and Python.
- Study of the electrical circuitry of the frigates' electronic brain to condition the signals to the engine controller software of the warships.

27 Aug 2007–30 Nov 2007	**Co-op intern**

Chemtech-Siemens, São Paulo (Brazil)
http://www.chemtech.com.br/

- Development, deployment and maintenance of complete stack for logistics and warehouse automation (in C#).
- Maintenance of C# network library for the communication between programmable logic controller and NetController.

3 Jan 2007–23 Mar 2007	**Co-op intern**

IBM, São Paulo (Brazil)
http://www.ibm.com/br

- Research and development (Extreme Blue program) on integration of VoIP and Unified Communications (Cisco VoIP PBX, IBM Sametime and public telephony service) using SIP protocol and J2EE (JSP).

25 Aug 2006–31 Dec 2006	**Research assistant**

IT Services of the Heart Institute in Hospital das Clínicas of Medicine School of University of São Paulo, São Paulo (Brazil)
http://www.incor.usp.br/spdweb/

- Support research (minor activity) and development of a novel solution to real-time monitor the glucoses levels in intensive care unit patients.

2 May 2006–25 Aug 2006	**Co-op intern**

IT Services of the Heart Institute in Hospital das Clínicas of Medicine School of University of São Paulo, São Paulo (Brazil)
http://www.incor.usp.br/spdweb/

- Development of robot for supporting medical decisions by telephone call and SMS using text and speech conversion technology in Java.
- Development of mobile version of the medical support system, including the electronic medical record version and an information cart.

Mar 2005–Jun 2005	**Teaching assistant**

Mathematics Institute of University of São Paulo, São Paulo (Brazil)
http://www.ime.usp.br/

- Support professor activities both in-lesson and laboratory activities for programming class in C.
- Grade both intermediary and final projects developed during the course.

PERSONAL SKILLS

Mother tongue(s)   Portuguese

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
English				
C2	C2	C2	C1	C1
TOEFL iBT: 97/120				
Italian				
C1	B2	C1	C1	B2
Lithuanian				
A1	A1	A1	A1	A1
French				
A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Digital competence
- Programming languages
  - □ Haskell
  - □ Python
  - □ Java
  - □ C

- □ C++
- Minor Knowledge
    - □ MATLAB
    - □ Perl

ADDITIONAL INFORMATION

Courses

- PhD-level
    - □ Spatiotemporal Modeling and Simulation of Biological Systems
    - □ Dissimilarity-based Representation for Pattern Recognition
    - □ Algorithmic Graph Theory
    - □ 1st International Summer School on Synthetic and Systems Biology
- MSc-level
    - □ Discrete-Event Systems
    - □ Models of Natural Computing
    - □ Fundamentals and Applications of Adaptive Theory
    - □ Probabilistic Reasoning Techniques in Artificial Intelligence
    - □ Organization and Flow of Genetic Information in Complex Systems
    - □ Statistical Natural Language Processing
    - □ Humanism and Creativity in Technological Innovation
    - □ Topics on Information Theory
    - □ Topics in the Foundation of Computer Engineering

Publications

- Gracini Guiraldelli, R.H., Manca, V.: **Automatic Translation of MP⁺V Systems to Register Machines**. In: Sempere, J.M. and Zandron, C. (eds.) Proceedings of the 16th International Conference on Membrane Computing (CMC16)., Valencia, Spain (2015).
- Inojosa da Silva Filho, R., Azevedo da Rocha, R., Gracini Guiraldelli, R.: **Learning in the Limit: A Mutational and Adaptive Approach**. In: Dowe, D.L. (ed.) Algorithmic Probability and Friends. Bayesian Prediction and Artificial Intelligence SE - 8. pp. 106–118. Springer Berlin Heidelberg (2013).
- Shibata, D., Alfenas, D., Guiraldelli, R., Pereira-Barretto, M.R., Marcellino, F.: **Activity based scheduling simulator for product transport using pipeline networks**. Proceedings Title: Proceedings of the 2012 Winter Simulation Conference (WSC). pp. 1–12. IEEE (2012).
- Gracini Guiraldelli, R.H., de Azevedo da Rocha, R.L.: **Adaptive Unification Of Graphs Applied To Haplotype Networks**. IEEE Lat. Am. Trans. 9, 950–955 (2011).
- Gracini Guiraldelli, R.H., de Azevedo da Rocha, R.L.: **Um Algoritmo Adaptativo de Unificação de Redes Haplotípicas**. In: Neto, J.J. and de Azevedo da Rocha, R.L. (eds.) Memórias do WTA 2011. pp. 97–100 (2011).
- Gracini Guiraldelli, R.H., de Azevedo da Rocha, R.L.: **Adaptive NIBP Low-pulse Detection: Detecting Low-pulse Adaptively**. In: Fred, A.L.N., Filipe, J., and Gamboa, H. (eds.) BIODEVICES 2010 - Proceedings of the Third International Conference on Biomedical Electronics and Devices, Valencia, Spain, January 20-23, 2010. pp. 113–116. INSTICC Press, Valencia, Spain (2010).
- Lage, S.G. et al.: **Real Time Continuous Glucose Monitoring System in a Medical Critical Care Unit**. Critical Care Medicine. 34, A68 (2006).
- Murakami, A. et al.: **A continuous glucose monitoring system in critical cardiac patients in the intensive care unit**. Computers in Cardiology 2006. pp. 233–236. IEEE, Valencia, Spain (2006).

Honours and awards

- Third prize (bronze medal) for the students project at Dresden Summer School in Systems Biology 2015.
- Erasmus Placement scholarship for European Mobility to Vilnius Gediminas Technical University in

Vilnius, Lithuania, from March, 2014 to September, 2014.

- PhD scholarship at Università degli Studi di Verona, Italy, from January, 2013 to December, 2015.
- Best bachelor project (educational category) of the year 2008 from the Computer Engineering department of the Engineering School of University of São Paulo, Brazil.
- First place at PRODESP/2007 contest for Informatics Specialists career (Infra-Structure and Operating Systems emphasis for Data Warehouse).
- Technological Industrial Undergraduate Research (ITI) Scholarship from the National Council for Scientific and Technological Development (Brazil) from April, 2007 to August, 2007.