

D Á R L I N T O N B A R B O S A F E R E S C A R V A L H O

PERSONAL INFORMATION

- E-Mail: darlinton@gmail.com

EDUCATION

- Doctor of Science in Computer Science
Software Engineering – Research theme: web science
Pontifical Catholic University of Rio de Janeiro – Rate 7/7 CAPES
In course since August 2009
- Master of Science in Computer Science
Software Engineering // Algorithms, Optimization and Parallelism
Pontifical Catholic University of Rio de Janeiro – Rate 7/7 CAPES
Date of Graduation: March 2007 GPA: 0.88/1.0
- Undergraduate:
Bachelor in Computer Science
Federal University of Ouro Preto
Date of Graduation: January 2004 GPA: 0.87/1.0 – best of class
- Technical:
Data Processing Technician
Federal Agrotécnica School of Barbacena
Date of Graduation: November 1998

LANGUAGES

- Portuguese: Native
- English: Fluent
- Spanish, Italian, French: Basic

SKILLS

- Strong analytical and problem solving – knowledge of the main computer science and mathematical techniques for problem solving.
- Experience with programming languages in several paradigms: C / Pascal (procedural), C++ / Java (objected-oriented), Lua (multi-paradigm), Haskell (functional), Prolog (logic), AspectJ (aspects), PHP, Clipper, Visual Basic, and some minor use of others.
- Experience with complex software architectures like multi-agent systems, service oriented, enterprise portals – architect of the Automatos portal (management of 1,2+ millions desktops and 100+ thousands servers over 19 countries) with 5-layers and implemented in J2EE systems using AJAX.
- Experience in team leadership and project management – technical leader of a team with 8 programmers.
- Experience in Object/Data Modeling and UML 2.0.
- Computer user since 1995 with DOS 6 and Windows 3.1, Linux since 1996 and experience with other OS like AIX, QNX.

PROFESSIONAL EXPERIENCE

- Intern of Siemens Corporate Research
Princeton – NJ – USA
Since June 2008 – expected December 2008
Function: Internship in Software Engineering (Visa J1).
Activities: Tester of the integration team tester for software developed by 100+ developers in 10 international teams for Siemens Building Technologies. Writing and running integration tests; development of automated testing. Research and development of new features for TDE (Test Development Environment) in Java. Support in several projects of Quality & Performance of Software Engineering Department.

- System Analyst of Automatos Inc.
Petrópolis – RJ
June 2007 – June 2008
Function: Senior system analyst working at Site and Agents teams.
Activities: At the site team, technical leader of the new site development Automatos 2.0. The site implementation is in J2EE using fine tuned web components (Taglibs, JSP, Servlets), AJAX, XHTML, XML, DAO, DB2, and with an architecture of five layers. All the components are fine tuned to give performance to the application, and the AJAX development includes the implementation of a framework for other internal projects. At the agent team, implementation in C/C++ of hardware and operations system information collectors. These collectors get information from all Windows versions, Linux, AIX, Solaris, Tru64, HP-UX, network devices through SNMP, thin clients, printers, PDA, cell phones.

- System Analyst Consultant of Ministry of Education
Brasília – DF
May 2006 – May 2007
Function: Senior system analyst consultant working at DEPEM/SESu
Activities: Enhancement of several modules for SISPROUNI, the support system of Programa Universidade para Todos (ProUni). Performance greatly improved in the module of scholarship management. The system implementations is in ASP / PL-SQL (SQLServer stored procedures), with Electronic Document Management and ICP-Brasil digital certification. The system audiences are institutional coordinators to keep track of the scholarships (order of 400 thousands) and students applying for the program, dealing with thousands of access by minute.

- Master Thesis Defended in Pontifical Catholic University of Rio de Janeiro
Rio de Janeiro – RJ
March 2007
Advisors: Carlos José Pereira de Lucena, Celso da Cruz Carneiro Ribeiro
Title: A Framework for Vocabulary Building Heuristic and yours Application to the Car Sequencing Problem
Abstract: Vocabulary building is a heuristic for solving combinatorial optimization problems, based on the identification of solution fragments which are common to good solutions and on their combination to intensify the search on

promising regions of the solution space. This technique can be vastly applied on problem solving. The technology of frameworks is an efficient strategy to facilitate the implementation and comparison of same domain algorithms. The objective of this work is to develop a C++ framework for the implementation of heuristics based on vocabulary building. Its development was based on a wide bibliographic revision about the technique and good software engineering practices, like oriented objects frameworks and design patters. We generated applications of the framework to solve the car sequencing problem, which is a combinatorial problem proposed by real requirements of the industry.

- Assistant Instructor of Pontifical Catholic University of Rio de Janeiro
Rio de Janeiro – RJ
January 2005
Function: Assistant Instructor of a course at Petrobras S/A
Activities: Assist students of a regular course of Analysis and Design with Oriented Objects. This course covers all the UML diagrams, GoF design patterns, and an introduction of architectural patterns; and has a project with an analysis and implementation of a system in J2EE with at least three Use Cases.
- Synergia / Computer Science Department / Federal University of Minas Gerais
Belo Horizonte – MG
March 2004 - July 2004
Function: System analyst working at design and implementation team
Activities: Implementation and maintenance of use cases in the Sistema de Informações Legislativas, using the Praxis Process. The system implementation was in J2EE, Struts, JUnit, Hibernate. Maintenance of continuous integration system - Cruise Control - for projects in development, based on Maven and Ant.
- Academic center of Computer science of Federal University of Ouro Preto
Ouro Preto – MG
March - 2001 - October 2003
Function: President and Director of Public Relations
Activities: Student representation at several types of council at University. Coordination of recreation (parties), sport (games), and student (lectures) activities.
- Research volunteer of Federal University of Ouro Preto
Ouro Preto – MG
February 2003 – July 2003
Function: Research volunteer
Activities: Implementation in C of a system based on Variable Neighborhood Search to solve the classical Vehicle Routing Problem. The system has integration with LINGO to provide a perturbation function based on the complete solving of the Traveling Salesman Problem.

- Trainee of Pilot Lab of Clinic Analysis of Federal University of Ouro Preto
 Ouro Preto – MG
 January 2003 – April 2003
 Function: Trainee
 Activities: Analysis of requirements and market of LIS software (Laboratorial Information System). The analysis of requirements was done using UML diagrams like use cases and use cases description.

- Freelancer
 More than 20 websites, 2 Musical CDs, supermarket networking configuration, security manager, assistant instructor of several disciplines.

CONFERENCES

- 19th International Symposium on Mathematical Programming (ISMP 2006)
- 2nd Brazilian Symposium on Graphs, Algorithms, and Combinatorics (GRACO 2005)
- XXXV Simpósio Brasileiro de Pesquisa Operacional (SBPO 2003)
- Latin American Conference on Human-Computer Interaction (CLICHC 2003)
- 10th Workshop on Logic, Language, Information and Computation (WoLLIC 2003)
- VII Simpósio Brasileiro de Linguagens de Programação (SBLP 2003)
- 48^o Congresso da União Nacional dos Estudantes (CONUNE 2003)
- 1^o Encontro Mineiro dos Estudantes de Computação (EMECOMP 2003)
- IV Semana de Estudos de Ciência da Computação - UFOP (SECIC 2000)

AWARDS

- National Council for Research (CNPq), Ph.D. Scholarship, 2009-2013
- Brazilian Ministry of Education (CAPES), M.Sc. Scholarship, 2005-2006
- First class in Computer Science, BS, ICEB/UFOP 2003.
- Honor mention in XI the Seminary of Scientific Initiation of the UFOP.
- Awardee in the State Competition of Sites Tourist promoted by the State legislature of Minas Gerais in the city of Ouro Preto - SET/2002.

PUBLICATIONS

CARVALHO, D.; LUCENA, C.; RIBEIRO, C.. Uma Proposta de Framework para Desenvolvimento de Aplicações Paralelas com Mobilidade. Revista RITA, p. 29-42, v. 14, n. 2, 2007.

CARVALHO, D.; RIBEIRO, C.; LUCENA, C.. Towards a framework for heuristics based on vocabulary building. Anais do 19th International Symposium on Mathematical Programming – ISMP 2006, Agosto de 2006, Rio de Janeiro.

CARVALHO, D.B.F.; OLIVEIRA, G.A.; SOUZA, M.J.F.. Método de Pesquisa em Vizinhança Variável Aplicado à Resolução do Problema de Roteamento de Veículos. Publicado nos Anais do XXXV Simpósio Brasileiro de Pesquisa Operacional - SBPO, Novembro de 2003, Natal.

CARVALHO, D.B.F.; OLIVEIRA, G.A.; CAVALCANTI, C.F.M.C; SOUZA,

M.J.F.. Roteamento em Redes de Computadores com Qualidade de Serviço: Uma Abordagem Metaheurística GRASP. Anais do XI Seminário de Iniciação Científica da Universidade Federal de Ouro Preto – SIC, Novembro de 2003, Ouro Preto.

CARVALHO, D.B.F.; OLIVEIRA, G.A.; SOUZA, M.J.F.. Uma Metodologia Híbrida Baseada em Vizinhaça Variável Aplicada ao Problema de Roteamento de Veículos. Anais do XI Seminário de Iniciação Científica da Universidade Federal de Ouro Preto – SIC, Novembro de 2003, Ouro Preto.

MARTINS, E.L.; CARVALHO, D.B.F.; MAIA, M.A.. Otimização das Camadas de Apresentação e de Acesso a Dados em Sistemas WWW de Conteúdo Dinâmico. Anais do XI Seminário de Iniciação Científica da Universidade Federal de Ouro Preto – SIC, Novembro de 2003, Ouro Preto.

March 01, 2010.