Diego Carvalho, D.Sc.

Brazilian.
+55 21 981062606 d.carvalho@ieee.org d_carvalho
http://diegocarvalho.org/
https://www.linkedin.com/in/diegomoreiracarvalho/

Introduction

Diego Carvalho is a professor at the Department of Production Engineering of the Federal Centre for Technological Education of Rio de Janeiro - CEFET/RJ. He got his undergraduate degree in Industrial Engineering, and he holds a Doctor's Degree in Systems Engineering and Computer Science.

He worked at the DELPHI Experiment - CERN as a computer scientist expert in the Complex Distributed Real-Time Data Acquisition & Control Systems and acted as a project manager in several object-oriented software development projects sponsored by the National Council for Scientific and Technological Development.

His professional experience covers diverse areas such as object-oriented design, distributed systems, network engineering, parallel architectures, grid technologies, data mining, and big data. He is a senior member of IEEE, listed among IEEE Impact Creators, and a member of IEEE Big Data.

Employment History

2006–· · · · **Associate Professor at Department of Production Engineering of the Federal Centre for Technology Education of Rio de Janeiro (CEFET-RJ).**

2010–2012 **User Community Support Manager.** GISELA - European Commission funded Research Project.

2008-2010 **e-Infrastructure Operations Manager.** EELA-2 - European Commission funded Research Project.

2006-2008 **e-Infrastructure Operations Manager.** EELA - European Commission funded Research Project.

1993-2005 **Network Manager.** Physics Institute of Federal University of Rio de Janeiro.

1998-1999 **Distributed Computer Control System Expert.** CERN - European Organization for Nuclear Research.

1993-1996 **Distributed Computer Control System Expert.** CERN - European Organization for Nuclear Research.

Miscellaneous Experience

Management

2019-· · · · **Head of Production Engineering Department**, Federal Centre for Technology Education of Rio de Janeiro (CEFET-RJ).

2016-2018 **Head of Production and System Engineering Graduate Program**, Federal Centre for Technology Education of Rio de Janeiro (CEFET-RJ).

2011-2014 **Director of Management and Budget**, Federal Centre for Technology Education of Rio de Janeiro (CEFET-RJ).

Patents

2006 Carvalho, D; JONES JR, J. ; LIMA, E. L. S. Patent PI0502085, Selo de segurança com indicador quimico de violação, INPI. filling date: 2005-06-08; issued: 2017-03-21.

2010 Carvalho, D.; JONES JR, J. ; SILVA, F. M. ; de Oliveira Souza, R. Patent PI10010580, Selo de segurança com indicador visual de violação , INPI. filling date: 2010-04-30.

Education

2010 **D.Sc., Graduate School and Research in Engineering Alberto Luiz Coimbra Institute - COPPE/UFRJ** in Computer Science and System Engineering.
Thesis title: *Distributed Scheduling of Workflows on Computational Grids.*

Education (continued)

2004 **M.Sc., Graduate School and Research in Engineering Alberto Luiz Coimbra Institute - COPPE/UFRJ** in Computer Science and System Engineering.
Dissertation title: *Scheduling by edge reversal with varying load and topology*.

1999 **Industrial Engineer, Polytechnic School of University of Brazil - EE/UFRJ.**

Selected Research Publications

Journal Articles

1. Barbosa, R., Cardoso, D. O., Carvalho, D., & França, F. M. G. (2018, July). Weightless neuro-symbolic GPS trajectory classification. *Neurocomputing*, *298*, 100–108.
2. Sternberg, A., Carvalho, D., Murta, L., Soares, J., & Ogasawara, E. (2016). An analysis of brazilian flight delays based on frequent patterns. *Transportation Research Part E: Logistics and Transportation Review*, *95*, 282–298. doi:https://doi.org/10.1016/j.tre.2016.09.013
3. Carvalho, D., de Souza, L. R., Barbastefano, R. G., & França, F. M. G. (2015, June). Stochastic product-mix: a grid computing industrial application. *Journal of Grid Computing*, *13*(2), 293–304. doi:10.1007/s10723-015-9325-z
4. Brasileiro, F., Gaudencio, M., Silva, R., Duarte, A., Carvalho, D., Scardaci, D., … Gavillet, P. (2011, June). Using a simple prioritisation mechanism to effectively interoperate service and opportunistic grids in the eela-2 e-infrastructure. *Journal of Grid Computing*, *9*(2), 241–257. doi:10.1007/s10723-010-9177-5
5. Carvalho, D., Andronico, G., Ardizzone, V., Barbera, R., Becker, B., Bruno, R., … Scardaci, D. (2011, June). E-infrastructures for e-science: a global view. *Journal of Grid Computing*, *9*(2), 155–184. doi:10.1007/s10723-011-9187-y

Conference Proceedings

1. Marechal, B., Bello, P. H. R., & de Araujo Carvalho, D. M. (2007). Building a grid in latin america: the EELA project e-infrastructure. In *Seventh IEEE international symposium on cluster computing and the grid (ccgrid 2007), 14-17 may 2007, rio de janeiro, brazil* (pp. 835–839). doi:10.1109/CCGRID.2007.30
2. Marechal, B., Bello, P. H. R., de Araujo Carvalho, D. M., & Mayo, R. (2007). Applications ported to the EELA e-infrastructure. In *Seventh IEEE international symposium on cluster computing and the grid (ccgrid 2007), 14-17 may 2007, rio de janeiro, brazil* (pp. 852–857). doi:10.1109/CCGRID.2007.24
3. Carvalho, D., Protti, F., De Gregorio, M., & França, F. M. G. (2005). A novel distributed scheduling algorithm for resource sharing under near-heavy load. In T. Higashino (Ed.), *Principles of distributed systems* (pp. 431–442). Berlin, Heidelberg: Springer Berlin Heidelberg.
4. Carvalho, D., Gavillet, P., Delgado, V., Albert, J. N., Bellas, N., Javello, J., … Smith, G. (1996). On the Relevancy of Efficient, Integrated Computer and Network Monitoring in HEP Distributed Online Environment. In R. Shellard & et al. (Eds.), *Computing in high energy physics: chep '95 - proceedings of the international conference. edited by shellard ronald et al. published by world scientific publishing co. pte. ltd., 1996. isbn #9789814447188, pp. 497-506* (pp. 497–506). doi:10.1142/9789814447188_0091

Full list available at http://lattes.cnpq.br/3413821323159487

Skills

Languages	Reading, writing and speaking competences for English and Portuguese. Reading and speaking competences for French and Spanish.
R&D	Grid Computing, Parallel Programming, Distributed Systems, Data mining.
Coding	C, C++, Python, R, SQL.
Databases	MySQL, PostgreSQL, SQLite.
Misc.	Academic research, teaching, training.