

Pedro de Botelho Marcos

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Academics

Visiting Ph.D. student (09/2017-12/2017)

King Abdullah University of Science and Technology - KAUST, Saudi Arabia

Host: Prof. Marco Canini

Keywords: interconnection agreements, blockchain

Ph.D. student in Computer Science, (03/2016-present)

Federal University of Rio Grande do Sul - UFRGS, Brazil

Advisor: Prof. Marinho Barcellos

Thesis title: TBD

Keywords: peering, interconnection, IXP, internet measurements

M.Sc. in Computer Science, (03/2011-01/2013)

Federal University of Rio Grande do Sul - UFRGS, Brazil

Advisor: Prof. Claudio Geyer

Thesis title: Maresia: MapReduce in a simple architecture

Keywords: MapReduce, fault tolerance, DHT

B.Eng. in Computer Engineering, (03/2006-12/2010)

Federal University of Rio Grande - FURG, Brazil

Research Interests

My research interests lie at the crossroads of theory and practice, with focus on the Internet more precisely in the interconnection/peering and routing aspects. My current work aims to provide a framework to evolve the Internet interconnection ecosystem by allowing network operators to establish interconnection agreements in short time frames (instead of days or weeks). Such approach will improve the operators' responsiveness to the frequent changes in the Internet traffic dynamics. In the past, I have worked with fault tolerance in distributed architectures, more specifically on the MapReduce model.

Research Scholarships

Research scholarship - 05/2017-04/2018

Scholarship from the Brazilian National Research and Education Network (RNP), Brazil, to work on the project GT-IPÊ-Analytics on activities related to the network analytics and Internet measurements. Supervisor: Prof. Marinho Barcellos.

Master's scholarship - 03/2011-01/2013

Scholarship from the Coordination for the Improvement of Higher Education Personnel (CAPES), Brazil, to support studies during the masters. Supervisor: Prof. Claudio Geyer.

Undergraduate scholarship - 06/2006-12/2010

Scholarship from the National Council for Scientific and technological Development (CNPq), Brazil, to work in the SIM-3D project on activities related to digital manufacturing. Supervisors: Prof. Nelson Lopes Duarte Filho and Prof. Silvia Silva da Costa Botelho.

Professional Activities

Lecturer (undergraduate level), Federal University of Rio Grande - FURG, Brazil, 09/2013-present (currently, I am on leave for a Ph.D. at UFRGS)

CTO, Zetaflops - High Performance Computing Ltda., Brazil, 04/2009-02/2011

Selected Publications

Alowayed, Yousef; Canini, Marco; **Marcos, Pedro**; Chiesa, Marco; Barcellos, Marinho. *Picking a Partner: A Fair Blockchain Based Scoring Protocol for Autonomous Systems*, In: ACM, IRTF & ISOC Applied Networking Research Workshop 2018 (ANRW'18), July 16, 2018.

Kathiravelu, Pradeeban; Chiesa, Marco; **Marcos, Pedro**; Canini, Marco; Veiga, Luís. *Moving Bits with a Fleet of Shared Virtual Routers*. In: IEEE/IFIP Networking'18, 2018.

Marcos, Pedro; Wermann, Alexandre; Bertholdo, Leandro; Barcellos, Marinho. *DYNAMIX: A Dynamic Agreement Marketplace on Internet eXchange Points*. In: Student Workshop ACM CoNEXT 2016.

Kolberg, Wagner; **Marcos, Pedro**; Anjos, Julio; Miyazaki, Alexandre; Geyer, Claudio; Arantes, Luciana. *MRSB - A MapReduce simulator over SimGrid*. In: Parallel Computing, v. 39, p. 233-244, 2013.

Marcos, Pedro; Emmendorfer, Leonardo. *Orpheu - A Performance-Oriented System for Musical Accompaniment: An Approach Using the Markov Decision Process*. In: Congresso Brasileiro de Automática, 2012, Campina Grande. Anais do XIX Congresso Brasileiro de Automática, CBA 2012., 2012. p. 2024-2030.

Duarte Filho, Nelson; Botelho, Silvia; Carvalho, Jonata; **Marcos, Pedro**; Maffei, Renan; Remor, Rodrigo; Oliveira, Rodrigo; Hax, Vinicius. *An immersive and collaborative visualization system for digital manufacturing*. International Journal, In: Advanced Manufacturing Technology, v. 50, p. 1253-1261, 2010.

Service

External reviewer: IMC'17, SBRC'17

Local organizing committee: SIGCOMM'16