Jonathan Pastor

Ph.D student at ASCOLA

Ph.D thesis

title — *Conception of a fully distributed IaaS manager based on OpenStack.*

supervisors — Frédéric Desprez and Adrien Lebre

defense — February 2016

Education

2012–now — **Ph.D, Computer Science**, *ASCOLA - Lina - Inria*, Nantes, .
Conception of a fully distributed IaaS manager based on OpenStack

2009–2012 — **Master, Computer Science**, *Ecole des Mines de Nantes*, Nantes, .
Engineering degree

2009–2012 — **Bachelor, Computer Science**, *Université de Nantes*, Nantes, .

Research Interests

Cloud Computing — Geographically distributed OpenStack, Cloud Computing infrastructures.

Distributed computing — Distibuted algorithms, concurrency, fault-tolerance.

Computer skills

Systems — OpenStack (Nova), Grid'5000, UNIX

Programming languages — Python, Java, Scala/Akka, R language
Web programming

Languages

French — Native

German — Scholar

English — Almost fluent

Spanish — Basics

Research activity

Publications

A. Lèbre, J. Pastor, and . The DISCOVERY Consortium, "The DISCOVERY Initiative - Overcoming Major Limitations of Traditional Server-Centric Clouds by Operating Massively Distributed IaaS Facilities," Research Report RR-8779, Inria Rennes Bretagne Atlantique, Sept. 2015.

A. Lebre, J. Pastor, and M. Südholt, "VMPlaceS : A Generic Tool to Investigate

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and Compare VM Placement Algorithms," in *Europar 2015*, (Vienne, Austria), Aug. 2015.

J. Pastor, "Vers un gestionnaire IaaS massivement distribuée s'appuyant sur OpenStack," in *Conférence d'informatique en Parallélisme, Architecture et Système*, (Lille, France), July 2015.

A. Lèbre, J. Pastor, M. Bertier, F. Desprez, J. Rouzaud-Cornabas, C. Tedeschi, A.-C. Orgerie, F. Quesnel, and G. Fedak, "Beyond The Clouds, How Should Next Generation Utility Computing Infrastructures Be Designed ?," in *Cloud Computing : Challenges, Limitations and R&D Solutions* (Z. Mahmood, ed.), Springer, Nov. 2014.

J. Pastor, M. Bertier, F. Desprez, A. Lèbre, F. Quesnel, and C. Tedeschi, "Locality-aware Cooperation for VM Scheduling in Distributed Clouds," in *Euro-Par 2014*, (Porto, Portugal), Aug. 2014.

F. Quesnel, A. Lèbre, J. Pastor, M. Südholt, and D. Balouek, "Advanced Validation of the DVMS Approach to Fully Distributed VM Scheduling," in *ISPA' 13 : The 11th IEEE International Symposium on Parallel and Distributed Processing with Applications*, (Melbourne, Australia), July 2013.

A. Lèbre, J. Pastor, M. Bertier, F. Desprez, J. Rouzaud-Cornabas, C. Tedeschi, P. Anedda, G. Zanetti, R. Nou, T. Cortes, E. Rivière, and T. Ropars, "Beyond The Cloud, How Should Next Generation Utility Computing Infrastructures Be Designed ?," Research Report RR-8348, INRIA, July 2013.

Awards

June 2014 **Grid'5000 large scale challenge**, *1st prize*, Grid'5000 Spring School 2014, Ecole normale supérieure de Lyon.
The experiment I conducted with Laurent Pouilloux got the first prize at the large scale challenge. The experiment consisted in deploying and scheduling 1700 VMs in a multi-site infrastructure, thanks to DVMS and the Vivaldi algorithm.

Professional Experience

Research

October 2012–now **Ph.D thesis**, *ASCOLA*, Nantes.
Conception of a fully distributed IaaS manager based on OpenStack.

Internships

February–August2012 **Research internship**, *ASCOLA*, Nantes.
Development on a Chemical Programming research project.

May–August 2011 **Javascript/ActionScript development**, *Accenture*, Riga (Latvia).

July 2010 **Worker on Mainframes assembly-lines**, *IBM*, Montpellier.

July 2009 **Javascript/XUL development**, *Carra-consulting*, Nantes.

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