Jonathan Pastor

Ph.D thesis

title	*Contributions to massively distributed Cloud Computing infrastructures.*
supervisors	Frédéric Desprez and Adrien Lebre
defense	October 2016

Education

2012–2016 **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, Ironic and Blazar), Grid'5000, UNIX (Mac and Linux)
Programming languages	Python, Shell, Java, Scala/Akka, R language Web programming

Languages

French	Native	English	Professional
German	Scholar	Spanish	Basics

Research activity

Publications

A. Lebre, J. Pastor, A. Simonet, and F. Desprez, "Revising OpenStack to Operate Fog/Edge Computing infrastructures," in *IEEE International Conference on Cloud Engineering*, (Vancouver, Canada), Apr. 2017.

K. Keahey, J. Pastor, and M. Chardet, "Publishing Platform for Geospatial Operations," in *The Third International Conference on CyberGIS and Geospatial Data Science*, (Urbana, United States of America), Aug. 2016.

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 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 conducted with Laurent Pouilloux got the first prize at the large scale challenge. During this experiment we used DVMS and the Vivaldi algorithm to deploy and schedule 1700 VMs over a multi-site infrastructure.

Professional Experience

Research

October 2012–October 2016 **Ph.D thesis**, *ASCOLA*, Nantes.
Contributions to massively distributed Cloud Computing infrastructures.

February 2016–December 2016 **Research Software Developer**, *Nimbus team*, University of Chicago/Argonne National Laboratory.
Worked on the implementation of the Chameleon infrastructure and on a platform for running software on complex appliances deployed with Cloud resources (DIBBs project).

Internships

February–August2012 **Research internship**, *ASCOLA*, Nantes.
Participation to the development of 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.