Michele Carpené

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Viale Oriani 44, 40137, Bologna, Italy

WORK EXPERIENCE

30/06/2010 – CURRENT
SOFTWARE ENGINEER – CINECA

Currently involved and participating in different european projects as software developer on the implementation of both front-end and back-end applications. As a Task Leader I coordinate different groups of researchers, software developers and technology experts.
As part of the HPC department currently contributing to build up a service-oriented "middleware" architecture in order to support High Performance applications and the implementation of Data Analysis workflows. I have been also involved in the development of software services for internal usage and web applications for industrial customers based on PHP, Javascript and CMS platforms as Drupal.

Keywords and technologies: Distributed Systems, Middleware, Unix, Bash, Java, JavaScript, Liferay, PHP, Perl, Python, Flask, Jupyter, AngularJS/Angular, Drupal, OpenLayer, MapBox, NodeJS, Bootstrap, MySQL, NoSQL, Neo4J, Ganglia, Docker, SSO, Shibboleth, OAuth2/OIDC, SAML2, Keycloak, Federated Systems, iRODS, Data Management, Big Data, Apache Spark, TensorFlow, Apache Storm, Quality Assurance, ElasticSearch, Kibana, Batch System, PBS, SluRM, UNICORE, Gitlab, CI/CD.

Bologna, Italy

30/06/2008 – 30/06/2010
SOFTWARE ENGINEER – INFN

I worked as part of an international team on the development of a Java framework for the build-testing of software applications, the ETICS2 project (http://etics.web.cern.ch/etics/).
Finally becomed responsible for the management of support activities for the Etics framework users (SA2 first level support).

Keywords and technologies: Java, Eclipse, SOAP, MySQL, Axis, Web Services, Ant, Maven, Apache, Tomcat, Python, Metronome framework (Wisconsin), Grid-Cloud Computing, Xen, VmWare.

Bologna, Italy

30/06/2007 – 30/06/2008
SOFTWARE ENGINEER – INFN

I developed C++ software on Linux platform for parallel applications on distributed systems (Grid Computing).
The project was a collaboration with CERN (http://home.web.cern.ch/) to develop new software components for the standardization of services in a distributed context (OMII).

Keywords and technologies: C++, template-based programming, Unix, Scientific Linux, Bash, gcc, Open Pegasus, Information Provider, Web Services, Perl, Job Scheduler, Torque/PBS, Design Pattern.

References:
http://sourceforge.net/projects/glueman/
http://sites.google.com/site/thegluemanproject/

Bologna, Italy

28/02/2006 – 30/06/2007
ELECTRONIC SUPPORT ENGINEER – FERRARI SPA

My job was to support sperimental activities on new electronic components, sensors, control units and software strategies on Formula One cars, analyzing C software code and solving technological issues interacting at the same time with the software team and the electronic office.

Keywords and technologies: C programming language, CAN bus, ARCNET bus, CAN Analyzer, Tester, Oscilloscope, sensors and mechanical base knowledge, problem solving, Matlab, Simulink, Stateflow. Also experience of electronic systems, test-benches, test on track, base knowledge on engine, gearshift, hydraulics, vehicle.

Bologna, Italy

EDUCATION AND TRAINING

01/09/2000 – 30/12/2005 – Bologna, Italy
COMPUTER SCIENCE ENGINEERING – University of Bologna

5 years Master Degree 100/110, Computer Science Engineering, 2000 - 2005

LANGUAGE SKILLS

Mother tongue(s): ITALIAN

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1
FRENCH	B1	B1	B2	B1	B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

PUBLICATIONS

GLUEMan: a WBEM-based Framework for Information Providers in Grid Services

2008
GLUEMan: a WBEM-based Framework for Information Providers in Grid Services - Enterprise Distributed Object Computing Conference Workshops, 2008 12th, Munich September 16, 2008, Authors: Michele Carpené, Sergio Andreozzi, Marco Canaparo

INFN-CNAF activity in the TIER1 and GRID for LHC experiments

2009
INFN-CNAF activity in the TIER1 and GRID for LHC experiments - Best Paper Award (Michael Alex Frumkin, Google Technical Director, USA) presented at IEEE 23° International Parallel & Distributed Processing Symposium May 23, 2009, Authors: Marco Bencivenni, Antonia Ghiselli, Michele Carpené and others

Software build and test using Grid and Cloud infrastructures

2010
Software build and test using Grid and Cloud infrastructures - ACM HPDC 2010 Chicago, Illinois June 20, 2010, Authors: Elisabetta Ronchieri, Valerio Venturi, Michele Carpené, Michele Dibenedetto, Andre Giesler

EMI UNICORE Execution Services for Interoperability across Middleware

2011
EMI UNICORE Execution Services for Interoperability across Middleware - UNICORE Summit 2011 - Torun, Poland July 7, 2011, Authors: Michele Carpené, Shiraz Memon, Shahbaz Memon, Bernd Schuller

Efficient Workload Distribution Bridging HTC and HPC in Scientific Computing

2012
Efficient Workload Distribution Bridging HTC and HPC in Scientific Computing - ICCSA 2012 (The 12th International Conference on Computational Science and Applications, Salvador de Bahia, Brazil): B. Murgante et al. (Eds.): ICCSA 2012, Part I, LNCS 7333, pp. 345--357. Springer, Heidelberg (2012) June 18, 2012, Authors: Michele Carpené, Carlo Manuali, Alessandro Costantini, Antonio Laganà, Marco Cecchi, Antonia Ghiselli, Elda Rossi

High Performance Grid Computing: getting HPC and HTC all together

2012
High Performance Grid Computing: getting HPC and HTC all together - EGI Community Forum 2012 EMI Second Technical Conference, Munich, Germany (DE) March 26, 2012, Authors: Michele Carpené, A. Laganà, C. Manuali, S. Rampino, A. Costantini, E. Rossi, A. Ghiselli, M. Cecchi

Lessons learned from UNICORE EMI-ES Adoption towards Improved Open Standards

2012
Lessons learned from UNICORE EMI-ES Adoption towards Improved Open Standards - EGI Community Forum 2012 / EMI Second Technical Conference, Munich, Germany March 26,2012, Authors: Shahbaz Memon, Shiraz Memon, Morris Riedel, Bernd Schuller, Björn Hagemeier, Michele Carpené

Experience with UNICORE Services for Multiscale Materials Modelling UNICORE Summit 2012

2012
Experience with UNICORE Services for Multiscale Materials Modelling UNICORE Summit 2012 - Dresden, Germany May 30, 2012, Authors: Michele Carpené, Andrew Emerson, Bozic Stefan, Kondov Ivan

Towards Addressing CPU-Intensive Seismological Applications in Europe

2013
Towards Addressing CPU-Intensive Seismological Applications in Europe - ISC 2013 (International Supercomputing Conference), Leipzig, Lecture Notes in Computer Science Volume 7905, 2013, pp 55-66, 5 authors, including: Michele Carpené (First Author), Iraklis Klampanos, Siew Hoon Leong (Cerlane), Graziella Ferini

VERCE - CPU-intensive Applications in Seismology

https://www.researchgate.net/publication/258774693_VERCE_-_CPU-intensive_Applications_in_Seismology – 2013
VERCE - CPU-intensive Applications in Seismology: Marek Simon, Siew Hoon Leong, Kasra Hosseini Zad, Lion Krischer, Michele Carpene, Geophysical Research Abstracts Vol. 15, EGU2013-4483, 2013 - EGU General Assembly 2013

Combining HPC with Data-Intensive Research via UNICORE for Seismological Applications

2013
Combining HPC with Data-Intensive Research via UNICORE for Seismological Applications - UNICORE Summit 2013 - Lepzig, Germany June 18, 2013, 5 authors, including: Michele Carpené , Graziella Ferini, Alessandro Spinuso, Luca Trani

Building a multidisciplinary e-infrastructure for the NextData Community

2014
Building a multidisciplinary e-infrastructure for the NextData Community - EGU2014-7194 April 29, 2014, Michele Carpené, Stefano Nativi, Marco Rorro, Paolo Mazzetti, Giuseppe Fiameni, Fabrizio Papeschi

VERCE delivers a productive e-Science environment for seismology research

2015
VERCE delivers a productive e-Science environment for seismology research - 11th IEEE International Conference on eScience – Munich, Germany Aug 31 – Sept 04, 2015 August 31, 2015 Authors: Malcolm Atkinson, Michele Carpené, Alessandro Spinuso, Jean-Pierre Vilotte, Alberto Michelini, Siew Hoon Leong (Cerlane), Others

VERCE: a productive e-Infrastructure and e-Science environment for data-intensive seismology research

2016
EGU2016-6524 VERCE: a productive e-Infrastructure and e-Science environment for data-intensive seismology research by Jean-Pierre Vilotte et al. accepted in Session SM7.1 Integrated Research Infrastructures and Services in Geosciences February 1, 2016

Integration of iRODS data workflows in an extensible HTTP REST API framework

2019
Integration of iRODS data workflows in an extensible HTTP REST API framework, Jun 26 2019, Proceedings of the iRODS User Group Meeting 25-28th June 2019, Utrecht, Authors: Michele Carpene', Claudio Cacciari, Giuseppa Muscianisi, Giuseppe Fiameni

An authentication solution for iRODS based on the OpenID Connect protocol, Jun 26 2019

2019
An authentication solution for iRODS based on the OpenID Connect protocol, Jun 26 2019, Proceedings of the iRODS User Group Meeting 25-28th June 2019, Utrecht, Authors: Michele Carpene', Claudio Cacciari, Giuseppa Muscianisi, Giuseppe Fiameni

Archival Data Repository Services to Enable HPC and Cloud Workflows in a Federated Research e-Infrastructure

https://ieeexplore.ieee.org/document/9308079/ – 2020
Archival Data Repository Services to Enable HPC and Cloud Workflows in a Federated Research e-Infrastructure, 2020 IEEE/ACM International Workshop on Interoperability of Supercomputing and Cloud Technologies (SuperCompCloud). Sadaf Alam, Javier Bartolome, Sanzio Bassini, Michele Carpene', Mirko Cestari, Frederic Combeau, Sergi Girona, Stefano Gorini, Giuseppe Fiameni, Björn Hagemeier, Andreas Herten, Nikoleta Kiapidou, Wouter Klijn, Dorian Krause, Jacques-Charles Lafoucriere, Cerlane Leong, Thomas Leibovici, Thomas Lippert, Colin McMurtrie, Pavel Mezentsev, Anne Nahm, Boris Orth, Dirk Pleiter, Thomas Schulthess, Benedikt von St. Vieth, Debora Testi, Gilles Wiber.

Fenix: Distributed e-Infrastructure Services for EBRAINS

https://link.springer.com/chapter/10.1007/978-3-030-82427-3_6 – 2021
Fenix: Distributed e-Infrastructure Services for EBRAINS. Part of the Lecture Notes in Computer Science book series (LNCS, volume 12339). Sadaf Alam, Javier Bartolome, Sanzio Bassini, Michele Carpene', Mirko Cestari, Frederic Combeau, Sergi Girona, Stefano Gorini, Giuseppe Fiameni, Björn Hagemeier, Andreas Herten, Nikoleta Kiapidou, Wouter Klijn, Dorian Krause, Jacques-Charles Lafoucriere, Cerlane Leong, Thomas Leibovici, Thomas Lippert, Colin McMurtrie, Pavel Mezentsev, Anne Nahm, Boris Orth, Dirk Pleiter, Thomas Schulthess, Benedikt von St. Vieth, Debora Testi, Gilles Wiber.

COMMUNICATION AND INTERPERSONAL SKILLS

Communication and interpersonal skills

Good communication skills

JOB-RELATED SKILLS

Job-related skills

Keywords and technologies: Distributed Systems, Middleware, Unix, Bash, Java, JavaScript, Liferay, PHP, Perl, Python, Flask, Jupyter, AngularJS/Angular, Drupal, OpenLayer, MapBox, NodeJS, Bootstrap, MySQL, NoSQL, Neo4J, Ganglia, Docker, SSO, Shibboleth, OAuth2/OIDC, SAML2, Keycloak, Federated Systems, iRODS, Data Management, Big Data, Apache Spark, TensorFlow, Apache Storm, Quality Assurance, ElasticSearch, Kibana, Batch System, PBS, SluRM, UNICORE, Gitlab, CI/CD.

OTHER SKILLS

Other skills

Language Skills: Italian Mother language English Fluent written and spoken. British Institute - ESOL certificate of attendance (Level B1+) French basic (CILTA Course Level A).