

Europass Curriculum Vitae



Personal information

Surname(s) / First name(s)

Paolo Margara

Address(es)

[REDACTED]

Telephone(s)

Mobile: [REDACTED]

Email(s)

[REDACTED]

Nationality(-ies)

Italian

Date of birth

[REDACTED]



Work Experience

June 2022 - present

HPC Engineer and Automation Manager

Name and address of employer

Fondazione Human Technopole - Viale Rita Levi-Montalcini 1, 20157 Milano

Type of business or sector

Information Technology Department at research institute

Occupation or position held

CCNL chimico farmaceutico Livello [REDACTED] - Full time, a tempo indeterminato

Main activities and responsibilities

My main duties are the management of the HPC facility and other linux services used for research purposes:

- IT infrastructure operations, servers and networks.
- Multi-platform authentication systems based on Active Directory.
- IT infrastructure monitoring (Ganglia).
- Linux Cluster Management Software (Bright Cluster Manager).
- Configuration Management & Automation Tool (Ansible).
- version control system (git).
- CI/CD platform (GitLab CI/CD).
- Installation server (The Foreman).
- HPC clusters design, development, setup and management.
- HPC engineering and parallel applications management, user support, etc.

December 2020 - May 2022

HPC Engineer

Name and address of employer

Fondazione Human Technopole - Viale Rita Levi-Montalcini 1, 20157 Milano

Type of business or sector

Information Technology Department at research institute

Occupation or position held

CCNL chimico farmaceutico Livello [REDACTED] - Full time, a tempo indeterminato

Main activities and responsibilities	<p>My main duties are the management of the HPC facility and other linux services used for research purposes:</p> <ul style="list-style-type: none"> - IT infrastructure operations, servers and networks. - Multi-platform authentication systems based on Active Directory. - IT infrastructure monitoring (Ganglia). - Linux Cluster Management Software (Bright Cluster Manager). - Configuration Management & Automation Tool (Ansible). - version control system (git). - CI/CD platform (GitLab CI/CD). - Installation server (The Foreman). - HPC clusters design, development, setup and management. - HPC engineering and parallel applications management, user support, etc.
January 2008 - November 2020	Senior System Engineer
Name and address of employer	Politecnico di Torino - DAUIN - Corso Duca degli Abruzzi 24, 10129 Torino
Type of business or sector	Information Technology Laboratory at university college
Occupation or position held	CCNL comparto "Università" categoria ■ - Full time, a tempo indeterminato
Main activities and responsibilities	<p>In addition to my duties during my previous work experience in the same structure, I'm currently working on the engineering and the administration of:</p> <ul style="list-style-type: none"> - IT infrastructure operations, servers and networks. - Multi-platform authentication systems based on LDAP and Samba. - Print server based on CUPS. - Backup systems. - Windows and linux, desktop lockdown and deployment. - LAMP server (Linux, Apache, MySQL and PHP). - Firewall (iptables) and network services (NTP, DHCP, DNS). - IT infrastructure monitoring (Nagios and Ganglia). - Configuration Management & Automation Tool (Ansible). - version control system (git, hg). - CI/CD platform (GitLab CI/CD). - Installation server (Cobbler, Packer, SystemImager and UDPCast). - Virtualization cluster based on oVirt and GlusterFS. - Virtualization server based on libvirt and KVM. - HPC clusters design, development, setup and management. - HPC engineering and parallel applications management, user support, etc. - Hadoop integration in HPC environment (Cloudera CDH). - HPC in the Cloud (Azure - IAAS).
November 2008	Teacher of IT courses
Name and address of employer	Valtec s.r.l. - Via Livorno 60 - Environment Park - Lab. B2 - 10144 Torino
Type of business or sector	Training and consulting company
Occupation or position held	Teacher of IT courses

Main activities and responsibilities	<p>This course provides knowledge and skills to manage accounts and resources in a working environment based upon Microsoft Windows Server 2003. These tasks include:</p> <ul style="list-style-type: none"> - managing user, computer and group accounts - managing access to network resources - printer management - management of organizational units in Active Directory based network - application of Group Policy to manage users and computers <p>This course also provides knowledge and skills needed to effectively maintain server resources, monitor performance, and safeguard data on a server running Microsoft Windows Server 2003.</p>
May 2008	Teacher of IT courses
Name and address of employer	Valtec s.r.l. - Via Livorno 60 - Environment Park - Lab. B2 - 10144 Torino
Type of business or sector	Training and consulting company
Occupation or position held	Teacher of IT courses
Main activities and responsibilities	<p>The first part of the course is dedicated to providing the necessary knowledge to design, create and publish documents on the web, through the HTML markup language and how to create style sheets with CSS.</p> <p>The second part of the course is dedicated to providing the necessary knowledge to create interactive HTML pages and dynamic, including how to incorporate active components in the pages, how to add client-side scripts with JAVASCRIPT, how to place items on the screen with CSS, and how to realize dynamic HTML pages (DHTML and AJAX).</p>
October 2005 - September 2007	Junior System Administrator
Name and address of employer	Politecnico di Torino - DAUIN - Corso Duca degli Abruzzi 24, 10129 Torino
Type of business or sector	Information Technology Laboratory at university college
Occupation or position held	Contratto di collaborazione coordinata e continuativa - Full time, a tempo determinato
Main activities and responsibilities	<p>In addition to the ordinary administration of didactic laboratories of DAUIN I worked on the implementation and maintenance of client's master images of the laboratory's hosts with both Windows and Linux.</p> <p>In addition I've deployed and maintained web servers based on either Windows (IIS + MySQL or MSSQL), on Linux and SUN Solaris (Apache + PHP + MySQL).</p> <p>I developed many web applications (PHP).</p>
Education and Training	
Name and type of organisation providing education and training	<p>Master of Science (MSc) - Computer Engineering ()</p> <p>Politecnico di Torino - Computer Engineering</p>

Principal subjects/occupational skills covered

The MSc degree programme is characterised by required courses in the fields of computer architecture, system programming, database technology, software engineering, automation, network services and technology, computer security. In the area of network applications there is further instruction in the development of distributed systems, such as geographical calculator networks and radiomobile telecommunications networks.

The topics explored include software development in distributed environments, performance evaluation of distributed systems, development of advanced applications and services in local and geographic networks.

Special attention is also given to communication, to the synchronization and interaction between product applications and hardware components, the design of corporate networks and data centres, as well as to analysis of communication systems based on modern technologies.

Title of qualification awarded

Master of Science (MSc) - Computer Engineering ()

Bachelor of Science (BSc) - Computer Engineering

Name and type of organisation providing education and training

Politecnico di Torino - Computer Engineering

Principal subjects/occupational skills covered

The BSc degree programme has a single core curriculum that provides students with basic engineering concepts and thorough knowledge of the main characteristics of information processing systems, for both hardware and software components.

The Computer Engineer's background covers a wide spectrum of technological topics ranging from the development of software to the management of computer networks and databases, to the design of hardware and control systems.

Title of qualification awarded

Bachelor of Science (BSc) - Computer Engineering ()

Maturità scientifica

Name and type of organisation providing education and training

Liceo Scientifico "Amedeo Avogadro" di Vercelli (VC)

Principal subjects/occupational skills covered

Mathematical, Physical and Chemical Sciences, Biology, Computer Science, Italian Language and Literature, English, History, Philosophy, Drawing and Art History.

Title of qualification awarded

Maturità scientifica ()

Personal Skills

Mother tongue(s)

Italian

English

IELTS General Training 6.0

Self-assessment
European level(*)

English

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
B1 Independent user	C1 Proficient user	B2 Independent user	B2 Independent user	B2 Independent user

(*)Common European Framework of Reference (CEF) level

<p>Technical skills and competences</p>	<p>High Performance Computing (HPC) computing center administration:</p> <ul style="list-style-type: none"> - Cluster design, deployment and monitoring - Open Grid Engine and SLURM, fine tuning and management - Parallel distributed file system (BeeGFS, Lustre) - Package manager for scientific software (Spack) - Application containerization (Docker, Singularity) - Engineering support <p>Engineering and administration of virtualization cluster based on oVirt and GlusterFS besides of single virtualization server based on libvirt and KVM.</p> <p>System Engineering and System Administration skills in a medium-sized (10000 users) heterogeneous environment including:</p> <ul style="list-style-type: none"> - IT infrastructure operations, servers and networks - Multi-platform authentication systems based on Active Directory, LDAP and Samba - Print server based on CUPS - Backup systems - Windows and linux, desktop lockdown and deployment - LAMP server (Linux, Apache, MySQL and PHP) - Firewall (iptables) and network services (NTP, DHCP, DNS) - IT infrastructure monitoring (Nagios and Ganglia) - Configuration Management & Automation Tool (Ansible) - version control system (git, hg) - CI/CD platform (GitLab CI/CD) - Installation server (The Foreman, Cobbler, Packer, SystemImager and UDP-Cast) - HPC clusters design, development, setup and management - HPC engineering and parallel applications management, user support, etc... - Hadoop integration in HPC environment (Cloudera CDH) - HPC in the Cloud (Azure - IAAS) - Microsoft Azure Fundamentals certified newline Programming skills with different programming language: - C, C++ - JAVA - Python - PHP - JavaScript - SQL - shell script with bash - web programming (html, css) <p>Highly skilled in many *nix operating systems, Linux and Solaris in particular, with a 15-years experience (10 years professional).</p> <p>Good knowledge of client-side issues in Microsoft Windows and major Linux distributions such as CentOS, Ubuntu, Debian and their integration with a Unix or Microsoft based domain.</p>
<p>Driving licence</p>	<p>A,B</p>
<p>Additional Information</p>	<p>Publications</p>

HPC4AI: an AI-on-demand federated platform endeavour

Proceedings of the 15th ACM International Conference on Computing Frontiers (CF '18), Ischia (NA), 08-10 May 2018. pp. 279-286

Marco Aldinucci, Sergio Rabellino, Marco Pironti, Filippo Spiga, Paolo Viviani, Maurizio Drocco, Marco Guerzoni, Guido Boella, Marco Mellia, Paolo Margara, Idilio Drago, Roberto Marturano, Guido Marchetto, Elio Piccolo, Stefano Bagnasco, Stefano Lusso, Sara Vallero, Giuseppe Attardi, Alex Barchiesi, Alberto Colla, Fulvio Galeazzi

Hadoop on a Low-Budget General Purpose HPC Cluster in Academia

ADBIS Special session on Big Data: New Trends and Applications (BiDaTA 2013), Genova. pp. 187-192

Paolo Margara, Paolo Garza, Nicolò Nepote, Luigi Grimaudo, Elio piccolo

Thinking BigData: Motivation, Results and a Few Recipes for a Balanced Growth of High Performance Computing in Academia

Congresso Nazionale AICA 2013, Fisciano (SA), 18-20 September 2013. pp. 694-703

Paolo Margara, Nicolò Nepote, Elio Piccolo, Claudio Demartini, Paolo Montuschi