PERSONAL INFORMATION

Giuseppe Cossu

📍 Via dei Masetti 22, 38121, Trento (TN), Italy

📞 +39 3470526099

✉ giuseppecossu@gmail.com

Sex Male

Date of birth 02/01/1982

Nationality Italian

WORK EXPERIENCE

06.2018 - present

System and Network Administrator

Fondazione Edmund Mach - Via E. Mach 1, 38098, S. Michele all'Adige, Italy

▪ Design, maintain and troubleshoot the local/remote networks and related systems
  - Cisco/Extreme switches (100+) and Cisco Identity Services Engine (ISE)
  - Palo Alto Firewall (VPNs, policies, User-IDs, Threat Prevention, URL-filtering)
  - Aruba Mobility Controller and APs (100+)
  - Windows Server (DHCP, DNS, AD groups, ...)

▪ System Administration
  - AWS Cloud Admin: EC2, S3, Glacier, VPC, CloudFormation, Backup, IAM, etc.
  - HPC Cluster on premise (SGE) and cloud-based (AWS Batch, AWS ParallelCluster)
  - Hybrid Storage solutions: AWS Storage Gateway, Veeam Backup & Replication
  - NetApp Storage (AFF and StorageGRID): tiering of data with NetApp FabricPool
  - Monitoring: Solarwinds Orion, Zabbix, Netdisco, IPAM, Splunk
  - Integration with Microsoft Active Directory, VMware vSphere, GNU/Linux, etc.

10.2016 – 06.2018

DevOps & Cloud Engineer

XPeppers - Piazza di Centa 7, 38122, Trento, Italy

▪ Working with the XPeppers team according to the Agile and DevOps best practices
  - Design and manage AWS Cloud infrastructures, including highly available solutions and Disaster Recovery. Using among others: VPC, EC2, CloudWatch, Lambda, RDS, ELB, Autoscaling, etc.
  - Infrastructure as Code & automation: mostly using Ansible and CloudFormation.
  - Linux System Administration (Ubuntu, CentOS, Debian, Amazon Linux).
  - Consulting activities on Mesosphere DC/OS: monitoring containers with Metricbeat and ELK stack
  - Create and utilize monitoring tools to find problems and resolve
  - User support using FreshDesk: incident management and change requests

02.2016 – 10.2016

Cloud Engineer & OpenStack Technical Instructor

CREATE-NET - Via alla Cascata 56/D Povo, 38123, Trento, Italy

▪ Working in the DISCO (DIStributed Computing and InfOrmation processing) area, focusing on Cloud technologies and data-analysis solutions
  - OpenStack Technical Expert in the activities related to the FI-CORE project
  - Consulting and Technical Support in commercial projects: design, setup of OpenStack IaaS
  - Designed Cloud architecture for the Cloud ECG research project (funded by the Autonomous Province of Trento). This project has the aim to develop a new ECG device focusing on innovative Cloud solutions for the storage and processing of health data on Cloud
  - Mirantis OpenStack Bootcamp Instructor. Teaching public and private Mirantis OS100 courses

06.2013 – 02.2016   ## Research Engineer

CREATE-NET - Via alla Cascata 56/D Povo, 38123, Trento, Italy

▪ Working in the Applied Research Area called "Smart Infrastructures"
- Setup, Configuration and Maintenance of the OpenStack testbed located in Trento (XIFI project). During this activity I dealt with the main OpenStack Components, Open vSwitch, MySQL, Corosync/Pacemaker, HAproxy and Ceph (including troubleshooting and advanced configurations). Moreover, I focused on the Networking part of OpenStack both physical (during installation and maintenance) and virtual (NaaS offered by Neutron)
- Consulting and Technical Support in commercial projects: design, setup and system maintenance of OpenStack IaaS

03.2011 – 03.2013   ## Technical Development Engineer

Co.Ri.TEL. c/o Ericsson R&D - Via G. Moruzzi 1, 56124, Pisa, Italy

▪ Developed Path Computational Element (PCE) for Multi-Layer Networks. C++ simulation tool using STL and Boost libraries. Tested scalability and performance on GNU/Linux using Bash scripting
▪ Developed a C library for Path Computation Element communication Protocol (PCEP). A client and server protocol used to optimize the management and control networks
▪ GUIs design and implementation for customer demonstrations developed using Qt and Java Swing
▪ Research activity in the area of Software Defined Networks, OpenFlow and GMPLS

06.2010 – 03.2011   ## Internship

Ericsson Telecomunicazioni SPA - Via G. Moruzzi 1, 56124, Pisa, Italy

▪ POINT (Packet–Optical Integration) research project. Developed a Path Computation Element able to handle packet layer and ROADM in a very efficient way. The feasibility has been assessed by a network prototype composed of four nodes produced by Ericsson Research Lab in Pisa
▪ PCE simulations and fault analysis on different metro/core networks (topology, traffic matrix, protection type) to evaluate network resource utilization and optimum network configuration
▪ Installing and configuring a demo network composed by prototype digital ROADMs, commercial MPLS switchs and commercial GMPLS control plane

EDUCATION

10.2005 – 03.2011   ## MSc in Computer Engineering, Grade 103/110

University of Pisa, Italy

▪ Depth knowledge on computer networks, how they work and their applications (TCP/IP, OSPF, BGP, etc.). Study of variety of topics, mainly concerning the management and security of networks, including QoS with MPLS, IntServ, DiffServ and ATM. Exploring WiFi, WiMax, VoIP. Principles of concurrent and distributed programming (multi-threaded programming in C/C++ and Java). Study and analysis of today's encryption systems (IPsec, SSL, SSH, digital signatures, etc.).

09.2001 – 10.2005   ## BSc in Computer Engineering, Grade 100/110

University of Pisa, Italy

▪ Methodological and operational knowledge of basic mathematical analysis, operations research, physics and computer science to interpret and describe engineering problems. Knowledge of electrical engineering, electronics, telecommunications and information technology. Specific knowledge in the area of information technology to identify, formulate and solve application problems, configure systems and manage services. Knowledge of C, C++, OOP, UML, Assembler, Web programming.

CERTIFICATIONS

09.2021 -

Building Containerized Applications on AWS
Coursera

▪ This course enable you to deploy and manage a containerized application using AWS: Elastic Container Service (ECS), Elastic Beanstalk and Elastic Kubernetes Service (EKS)

06.2021 -

Professional Scrum Master I (PSM I)
Scrum.org

▪ People who have passed PSM I demonstrate a fundamental level of Scrum mastery. PSM I certificate holders prove that they understand Scrum as described in the Scrum Guide and how to apply Scrum in Scrum Teams. PSM I holders have a consistent terminology and approach to Scrum

03.2018 – 02.2024

AWS Certified Solutions Architect - Associate
Amazon Web Services (AWS)

Recertified 02.2021 (Certification through AWS is valid for three years from the date it was earned)

▪ Abilities Validated by the Certification:
- Effectively demonstrate knowledge of how to architect and deploy secure and robust applications on AWS technologies
- Define a solution using architectural design principles based on customer requirements
- Provide implementation guidance based on best practices to the organization throughout the life cycle of the project

11.2017 – 11.2023

AWS Certified SysOps Administrator - Associate
Amazon Web Services (AWS)

Recertified 11.2020 (Certification through AWS is valid for three years from the date it was earned)

▪ Abilities Validated by the Certification:
- Deploy, manage, and operate scalable, highly available, and fault-tolerant systems on AWS
- Select the appropriate AWS service based on compute, data, or security requirements
- Identify appropriate use of AWS operational best practices
- Estimate AWS usage costs and identify operational cost control mechanisms
- Migrate on-premises workloads to AWS

02.2016 -

Mirantis Certified Administrator for OpenStack Professional Level (MCA200)
Mirantis

▪ The MCA200 is a performance based hands-on exam, measuring an individual's proficiency in creating, configuring and managing OpenStack environments

03.2007 -

Cisco Networking Academy Skills certificate (related to CCNA)
Università di Pisa & CISCO Systems

▪ The Cisco Networking Academy Program is based on a partnership between the courses of Computer Systems Engineering at the University of Pisa and Cisco Systems

PERSONAL SKILLS

Mother tongue(s)   Italian

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
B2	B2	B2	B2	B2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

Ho preso visione dell'informativa in merito al trattamento dei miei dati personali in accordo con il Regolamento UE 2016/679 (GDPR).
Autorizzo il trattamento dei miei dati personali presenti nel curriculum vitae ai sensi del D.lgs. 196/2003 e del GDPR.

| Communication skills | ▪ I am used to communicate with people from different educational and cultural backgrounds due to my work experiences in European funded projects |

| Organisational / managerial skills | ▪ Ability to handle multiple projects and priorities in a professional and timely manner
▪ Proactive approach in resolving problems and issues
▪ Supervised two students of M.S. Telecommunications Engineering (University of Trento) 2014. Project name: "media streaming application in a multi-region scenario, using SDN and NaaS to guarantee QoS" |

| Job-related skills | ▪ Decision making: I have lead several projects during which I had to take decisions for the team in order to implement the projects successfully
▪ Team work: I have worked in task groups on assignments and this enabled me to develop skills in team working and also negotiations |

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Levels: Basic user - Independent user - Proficient user
Digital competences - Self-assessment grid

▪ Programming: Python, C, C++, Linux Shell Scripting
▪ Web/Scripting: HTML, CSS, PHP, JavaScript, Joomla!, Wordpress
▪ Operating Systems: Windows, Mac OS X, GNU/Linux
▪ Packages: Microsoft Office, OpenOffice, Matlab
▪ Photo Editing: Photoshop, Lightroom

| Driving licence | B |

PUBLICATIONS

| December 12, 2016 | ▪ G. Cossu, D. Pizzolli, D. Santoro, et al., *"Cloud4IoT: a Heterogeneous, distributed and autonomic cloud platform for the IoT"*, IEEE International Conference on Cloud Computing Technology and Science (CloudCom) 2016, Luxembourg City, Luxembourg |

| November 12, 2013 | ▪ G. Cossu, F. M. Facca, E. Salvadori, et al., *"Using SDN for cloud services provisioning: the XIFI use-case"*, IEEE Conference, SDN for Future Networks and Services (SDN4FNS) 2014, Trento, Italy |

| October 23, 2013 | ▪ G. Cossu, P. Iovanna, A. Germoni, F. Testa, V. Lopez, R. Sabella, *"Multilayer control for packet-optical networks"*, IEEE/OSA Journal of Optical Communications and Networking Vol. 5, Issue 10 |

| March 20, 2013 | ▪ G. Cossu, G. Bottari, P. Iovanna, *"Dynamic Packet Offload Tuning in Packet-Optical Network Scenarios"*, Proceedings of OFC/NFOEC 2013, Anaheim, USA |

| March 3, 2012 | ▪ G. Cossu, G. Bottari, P. Iovanna, F. Ubaldi, *"Survivability Self-Management in GMPLS Controlled Packet Optical Networks"*, Proceedings of OFC/NFOEC 2012, Los Angeles, USA |

| March 3, 2012 | ▪ G. Cossu, G. Bottari, P. Iovanna, *"Optimum Balance between Preplanned and On The Fly Recovery in Packet-Optical Transport Networks"*, Proceedings of OFC/NFOEC 2012, Los Angeles, USA |