

MAURICIO VÁSQUEZ BERNAL

Date of Birth: August 31, 1991 - Nationality: Colombian

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Education

▪ October 2013 – December 2015

Master of Science, Computer Engineering, Politecnico di Torino, Turin (Italy)

I got my MSc in a frame of double degree agreement between the Politecnico di Torino and Universidad de Antioquia in Colombia.

More relevant courses:

- Local Area Networks Design (LAN technologies, switching architectures)
- Computer Network Technologies and Services (MPLS, VoIP, VPNs)
- Protocols and Routing Architectures (RIP, EIGRP, OSPF, BGP)
- Computer System Security
- Software Engineering
- System Programming (Brief introduction to C++11, Win32, C#)
- Distributed Programming I (Distributed applications and Web Programming)
- Distributed Programming II (SOAP, XML, WSDL)

Thesis:

- Implementing a direct vm2vm communication channel prototype in Open vSwitch

▪ March 2009 – July 2013

Bachelor, Electronic Engineering, Universidad de Antioquia, Medellín (Colombia)

I did my bachelor in Electronic Engineering focused on programming and computer networks. Additionally I acquired a quite good theoretical and practical knowledge on analogical and digital hardware development.

More relevant courses:

- Computer Science I (Algorithms and C)
- Computer Science II (C++ and Qt)
- Computer Networks I (General review of the ISO-OSI model)
- Computer Networks II (Routing and Switching Protocols)
- Digital Circuits I, II, III
- Fundamentals of Artificial Intelligence (Fuzzy Logic, Neural Networks, Data Mining, Genetic Algorithms)

Work Experience

▪ February 2016 – Present

Researcher Netgroup - Polytechnic University of Turin, Italy

Currently, I am a researcher in netgroup Polito. I am part of a European project called Unify where I continue to work on my thesis topic in order to develop a transparent optimization of Inter-Virtual network function

communication in Open vSwitch. Additionally to it, I am in charge of performing different activities as testing, validation and documentation

- October 2013 – December 2015

Telemetry Designer and Developer, Squadra Corse Polito, Turin (Italy)

In the 2014/2015 season I was in charge of the designing the real time telemetry and data logging system for the car, additionally I developed the desktop application for the real time telemetry and the firmware and hardware for the data logger unit.

The season 2013/2014 I was in charge of designing and building the Inertial Measurement Unit.

- May 2011 – July 2013

Teacher Assistant, Universidad de Antioquia, Medellín (Colombia)

I was involved in a tutoring program for the students of the course Informatics which has as main topic algorithms and C programming.

Languages

Spanish Native Speaker

	Understanding		Speaking		Writing
	Listening	Reading	Spoken Interaction	Spoken Production	
English	C1	C2	B2	B2	B2
	IELTS 7.0				
Italian	B2	B2	B2	B2	B2
	Esame Istituto Italiano di Cultura in Colombia				

Job-related Skills

- Computer Networks: Good knowledge of TCP/IP, Software Defined Networks and Network Function Virtualization, Wireless and LAN technologies, Routing Protocols (interior and exterior).
- Cloud Computing: Good knowledge of Virtualization, KVM and QEMU, Open vSwitch. Basic knowledge of OpenStack, Docker, Linux Containers.
- Embedded Systems: Good knowledge of embedded systems, hardware and firmware design and testing.
- Programming Languages: Excellent knowledge of C, good knowledge C++ and Qt, basic knowledge of Java, Python and Matlab. Good Knowledge of Data Plane Development Kit (DPDK).

Honours and awards

- Best per-level grades in Electronic Engineering for 5 times, University of Antioquia.
- Outstanding student of the years 2011 and 2012 in Electronic Engineering, University of Antioquia.

Personal Interests

I am a fan of almost all kind of motor sports, F1, GT, WRC etc, I also like commercial aviation, specially big airplanes. In my free time I practice cycling (Mountain Bike).