Massimo Girondi

PhD student @ NSLAB - KTH, Royal Institute of technology

Personal

Living Place	**Stockholm, Sweden**
Birth	**30/05/1996**, *Vicenza*, Italy

Education

2020- — **PhD candidate Communication Systems**, *KTH, Royal Institute of technology*, Stockholm
Focus on High Speed Networking, Data-Center applications, Programmable NICs, GPUs.

2018-2020 — **Master degree in Information and Communication Engineering**, *University of Trento*, Trento
LM27 - Telecommunication Engineering - 110/110 with honour

2018-2020 — **Master degree in Computer Science**, *KTH, Royal Institute of technology*, Stockholm

2018-2020 — **Master degree in ICT Innovation**, *EIT Digital Master School*, UNITN, Trento & KTH, Stockholm
Double degree program in ICT Innovation: Internet Technology and Architecture

Jul-Aug 2019 — **IoT for Industry 4.0 Summer School**, *EIT Digital Summer School*, Munich
Two weeks of full-immersion in IoT applied to Industry 4.0 with the aim to develop a business idea.

2015-2018 — **Undergraduate Degree in Computer Sciences**, *University of Trento*, Trento
L31 - Computer Science - 110/110 with honour

2010-2015 — **Industrial Technician Diploma in Computer Sciences**, *I.T.T. Chilesotti*, Thiene (VI)
Computer Sciences Specialization - 95/100

Experience

Jul 2020- — **Research Engineer in Network Systems**, *NSLAB @ KTH, Royal Institute of Technology, Stockholm*,
Researcher in high-speed networking and Data Center networking solutions.
Also putting the oil to maintain the Lab's cluster running smoothly.

Aug 2020 - June 2022 — **Technical Director**, *FLOX Robotics*, Providing the glue to successfully bring the solution to the market
UAV prototyping, embedded devices programming, backend developer, system design and administration.

Jan-Jun 2020 — **Efficient monitoring in 5G Core Network**, *Ericsson Research*, Master Thesis project
Implementation and study of monitoring functionalities in the 5G Core Network.

Feb-Jul 2018 — **PeerStreamer-NG**, *ANS - DISI, Unitn*, Bachelor Thesis project
Development of some functionalities of videoconference in PeerStreamer-NG, a P2P streaming platform.

2014-2016 — **OpenBdT**, *Banca del tempo di Isola Vicentina*
Development of a Web Application to manage the activity of a time bank in PHP.

Summer 2014 — **Leonardo Da Vinci Project**, *Forins 2013*
4 weeks work experience at Curry's PC World in Llandudno (Wales)

Computer Skills

Programming Languages

C/C++, Python, Java, P4, C#

Scripting	Bash, NodeJS

Others

O.S.	GNU Linux	*Daily Use*
V.C.S.	Git & GitHub	*Daily Use*

Virtualization	Docker, VirtualBox, Vagrant, QEMU, OpenStack	*Basic Knowledge*
Technologies	DPDK, Linux application profiling, CUDA, RDMA, OpenFlow	
Linux stuff	VIm, TMux, server & network setup and administration, ansible, cloud-init	
DBMS	MySQL, MongoDB	*Basic knowledge*
Others	Intel, ARM and MIPS assemblers, SML	*Basic knowledge*
Various	MATLAB, SimuLink, Pandas, Matplotlib	*Basic knowledge*
	LaTeX, MarkDown	*Daily Use*

Languages

Italian	Native Tongue	
English	CEFR B2 (Upper Intermediate)	*Cambridge FCE - 01/12/2017*

Awards

2019 **StartUp Lab 2019**, *Contamination Lab Trento*, University of Trento
During the StartUp Lab course, with my group we won the third place among 19 innovative business ideas.

2017 **Paolo Gobetti Award - Secondary school**, *"Filmare la storia" competition*, Archivio Nazionale Cinematografico della Resistenza
Award obtained for a documentary named "Il viaggio di Genoveffa", realized during the 2014-15 school year at I.T.T. Chilesotti

2016 **Lunacom award**, *I.T.T. Chilesotti*, Thiene (VI)
Contest organized by a local company to reward the final exam.

2012 **Student of the year**, *I.T.T. Chilesotti*, Thiene (VI)

Personal Interests

I'm into Linux and Open Source from several years, I like the idea that what I make could be helpful for someone else. I have a very technical background, mainly focused on Computer Science. During my master degree I steered more on networking and more engineering topics, together with some new courses on entrapreneurship.

I am currently pursuing a PhD path in the field of networking, touching a lot of interesting technologies, from high-speed networking, to programmable hardware, passing through GPUs and SmartNICs, while also helping to maintain the Lab's cluster running. I consider myself a proficient Linux user, both on personal devices and setting-up/maintaining servers, operating almost always through CLI and SSH connections. And as any programmer, I like to spend 10x more time to automatize something boring.

I'm always eager to learn new things, fix problems by myself and get my hands dirty with new stuff.

Publications

[1] M. Girondi, T. Barbette, and M. Chiesa, "High speed connection tracking on modern servers," in *IEEE HPSR 2021*, 2021. DOI: 10.1109/HPSR52026.2021.9481841. [Online]. Available: https://ieeexplore.ieee.org/document/9481841.

[2] H. Ghasemirahni, T. Barbette, G. P. Katsikas, *et al.*, "Packet order matters! improving application performance by deliberately delaying packets," in *19th USENIX Symposium on Networked Systems Design and Implementation (NSDI '22)*, Community Award Winner! 2022.

[3] D. Brunello, M. Girondi, E. Mintchev, O. Giordano, D. Radityapalma, and M. Viñas, "Comparison of flow classication methods for load balancing," KTH, Royal Institute of Technology, 2020, Technical report for the IK2200 Course at KTH.

[4] M. Girondi, "Efficient traffic monitoring in 5g core network," KTH, Royal Institute of Technology, 2020, Master Thesis. [Online]. Available: https://girondi.net/pub/msc_thesis.

[5] M. Girondi, "Multiflow distribution management for videoconference on a single PeerStreamer overlay," University of Trento, 2018, Bachelor Thesis, in Italian. Original title: Gestione della distribuzione multiflusso per videoconferenza su un singolo overlay PeerStreamer.

Check the up-to-date online version at https://girondi.net/pub