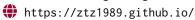
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# **Experience**

Aug, 2020 – till now	Research Engineer Nokia Bell Labs, Paris-Saclay, France. Permanent contract.
Sep, 2020 – till now	Associate Member Laboratory of Information, Networking and Communication Sciences (LINCS), Paris, France.
Oct, 2017 - Nov, 2019	<b>PostDoc Researcher</b> Telecom ParisTech & Cisco Systems, Paris, France. Supervisor: Prof. Dario Rossi, Prof. Luigi Iannone
Jun, 2017 – Aug, 2017	Intern Nokia Bell Labs, Paris-Saclay, France. Supervisor: Dr. Massimo Gallo
Nov, 2014 - Nov, 2017	<b>Ph.D. Researcher</b> Joint Open Lab, Telecom Italia, Turin, Italy. Supervisor: Dr. Pino Castrogiovanni

# **Education**

2014 – 2017	<b>Ph.D., Politecnico di Torino</b> Department of Electronics and Telecommunications. Supervisor: Prof. Paolo Giaccone, Prof. Marcello Chiaberge.
	Thesis title: Control plane optimization in Software Defined Networking and task allocation for Fog Computing.
2012 – 2014	<b>M.Eng., Politecnico di Torino</b> in Computer and Communication Networks Engineering.
	Thesis title: Distributed Controllers in Software Defined Networks.
2008 – 2012	<b>B.Sc., Huazhong University of Science and Technology</b> in Computer Science and Technology.

## Research interest

Network Softwarization, High-speed packet processing, Artificial Intelligence, Internet of Things, Robotics

# **Industrial Projects**

2020 – 2021	Augmenting Robotics with distributed AI A Nokia project to integrate AI-augmented services into the ground robots and the robotic operating system. (Co-PI)
2020 – 2022	Edge Intelligence for Industrial IoT  A Nokia project for the adaptive execution of heavyweight AI models in Industrial IoT environments. (Co-PI)
2021 – 2024	Inference Of Network characteristics via nOn-invaSive Data eXploration A joint project for network management via non-intrusive data collection. (Contributor)
2021 – 2022	Log analysis using cluster computing A Nokia project to explore Big Data techniques for high-performance log parsing and analytics. (Contributor)

### **Industrial Projects (continued)**

2017 – 2018 High-speed traffic generation and monitoring
An industrial project sponsored by Cisco Systems to enable high-performance packet processing using commodity hardware. (Contributor)

2015 – 2016 SDN@Edge
A joint European Project to push SDN frontier to the network edge. (Contributor)

#### **Publications**

#### **Journal Articles**

- **Zhang**, **T.**, Linguaglossa, L., Giaccone, P., Iannone, L., & Roberts, J. (2021). Performance benchmarking of state-of-the-art software switches for nfv. *Computer Networks*, 107861.

   https://doi.org/https://doi.org/10.1016/j.comnet.2021.107861
- Zhang, T., Qiu, H., Linguaglossa, L., Cerroni, W., & Giaccone, P. (2021). Nfv platforms: Taxonomy, design choices and future challenges. *IEEE Transactions on Network and Service Management*, 18(1), 30–48. 6 https://doi.org/10.1109/TNSM.2020.3045381
- **Zhang**, **T.**, Linguaglossa, L., Gallo, M., Giaccone, P., & Rossi, D. (2019). FloWatcher-DPDK: Lightweight line-rate flow-level monitoring in software. *IEEE Transactions on Network and Service Management*, 16(3), 1143–1156. Ohttps://doi.org/10.1109/TNSM.2019.2913710
- **Zhang**, **T.**, Chiasserini, C. F., & Giaccone, P. (2018). Tame: An efficient task allocation algorithm for integrated mobile gaming. *IEEE Systems Journal*, 13(2), 1546–1557.

  https://doi.org/10.1109/JSYST.2018.2829496

#### **Conference Proceedings**

- Shelbourne, C., Linguaglossa, L., **Zhang**, **T.**, & Lipani, A. (2021). Inference of virtual network functions' state via analysis of the cpu behavior, In *International teletraffic congress*.
- Shelbourne, C., Linguaglossa, L., Lipani, A., **Zhang**, **T.**, & Geyer, F. (2019). On the learnability of software router performance via cpu measurements, In *Proceedings of the 15th international conference on emerging networking experiments and technologies student workshops*, Orlando, FL, USA, Association for Computing Machinery. https://doi.org/10.1145/3360468.3366776
- **Zhang**, T., Linguaglossa, L., Roberts, J., Iannone, L., Gallo, M., & Giaccone, P. (2019). A benchmarking methodology for evaluating software switch performance for nfv, In 2019 ieee conference on network softwarization (netsoft posters and demos). https://doi.org/10.1109/NETSOFT.2019.8806695
- **Zhang**, **T.**, Linguaglossa, L., Gallo, M., Giaccone, P., Iannone, L., & Roberts, J. (2019). Comparing the performance of state-of-the-art software switches for NFV, In *Proceedings of the 15th international conference on emerging networking experiments and technologies*, Orlando, Florida, Association for Computing Machinery. **6** https://doi.org/10.1145/3359989.3365415
- **Zhang**, **T.**, Linguaglossa, L., Gallo, M., Giaccone, P., & Rossi, D. (2018a). FlowMon-DPDK: Parsimonious per-flow software monitoring at line rate, In 2018 network traffic measurement and analysis conference (tma). § https://doi.org/10.23919/TMA.2018.8506565
- **Zhang**, **T.**, Linguaglossa, L., Gallo, M., Giaccone, P., & Rossi, D. (2018b). High-speed per-flow software monitoring with limited resources, In *Proceedings of the acm sigcomm 2018 conference on posters and demos*. Https://doi.org/10.1145/3234200.3234203

- Pianco, A., Giaccone, P., Kelki, S., Campos, N. M., Traverso, S., & **Zhang**, **T.** (2017). On-the-fly traffic classification and control with a stateful SDN approach, In 2017 ieee international conference on communications (icc). https://doi.org/10.1109/ICC.2017.7997297
- **Zhang**, **T.**, Bianco, A., Giaccone, P., & Nezhad, A. P. (2017). Dealing with misbehaving controllers in SDN networks, In *Globecom 2017-2017 ieee global communications conference*. IEEE.

  https://doi.org/10.1109/GLOCOM.2017.8254752
- **Zhang**, **T.**, Bianco, A., & Giaccone, P. (2016). The role of inter-controller traffic in SDN controllers placement, In 2016 ieee conference on network function virtualization and software defined networks (nfv-sdn). 6 https://doi.org/10.1109/NFV-SDN.2016.7919481