Gabriele Russo Russo

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Personal information

Birthdate: January 17, 1992
Birthplace: Avellino, Italy
Nationality: Italian
Gender: Male

Education

2017–today **PhD student in Computer Science, Control and Geoinformation** at University of Rome Tor Vergata. Winner of a grant financed by the Italian Ministry for Education, University, and Scientific Research.

Advisors: Prof. Valeria Cardellini, and Prof. Francesco Lo Presti.

2014–2017 **Laurea Magistrale (MSc equivalent) in Computer Engineering *cum laude*** at University of Rome Tor Vergata.

Thesis: "Optimal Deployment and Run-Time Reconfiguration for Data Stream Processing". *Advisors*: Prof. Valeria Cardellini and Prof. Francesco Lo Presti.

2011–2014 **Laurea (BSc equivalent) in Computer Engineering *cum laude*** at University of Rome Tor Vergata.

Thesis: "Analysis and Implementation of Energy-Aware Routing Algorithms for Ad-Hoc Wireless Networks". *Advisor*: Prof. Francesco Lo Presti.

Attended Summer Schools and Symposiums

2018 Symposium "Being human with algorithms", organized by the German ACM Chapter. Heidelberg, September 2018. I won a grant sponsored by ACM CECL.

2018 "Advanced Course on Data Science & Machine Learning" (ACDL), Siena, Italy. July 2018.

2017 Summer School on "Optimization, Big Data and Applications" (OBA), Veroli, Italy. July 2017. I also took part in the OBA Award session, presenting my current research activity.

2017 International Summer School on "Latency Control for Internet of Services" organized by COST Action 1304 *Autonomous Control for a Reliable Internet of Services* (ACROSS), Karlstad, Sweden, June 2017. I won a student travel grant for attending the school, where I presented a poster entitled "Optimal Placement and Replication for Elastic Distributed Data Stream Processing".

Awards

2011 **Alfiere del Lavoro**, awarded by Italian President Giorgio Napolitano and *Federazione Nazionale Cavalieri del Lavoro*.

Included in the list of 25 Italian students completing high school with the highest grades during the previous five years.

Teaching activity

Teaching Assistant

2018/2019 ***Computer Architecture*** course, taught by Prof. Valeria Cardellini and Prof. Francesco Lo Presti at University of Rome Tor Vergata.

2017/2018 ***Computer Architecture*** course, taught by Prof. Salvatore Tucci at University of Rome Tor Vergata.

2016/2017 ***Computer Architecture*** course, taught by Prof. Salvatore Tucci at University of Rome Tor Vergata.

Theses

I have been co-advisor for the following *Laurea Magistrale* (MSc) theses:

T1 G. Vertulli, "A Deep Reinforcement Learning-based Approach for Data Stream Processing Application Deployment" (italian), October 2018.

Professional service

I have reviewed manuscripts submitted to the following international journals:
- Cluster Computing, Springer (2019)
- Expert Systems with Applications, Elsevier (2018)

I have reviewed manuscripts submitted to the following international conferences:
- IEEE Vehicular Technology Conference (2018)

Publications

International Journals

J3: G. Russo Russo, M. Nardelli, V. Cardellini, F. Lo Presti, "Multi-Level Elasticity for Wide-Area Data Streaming Systems: A Reinforcement Learning Approach", *Algorithms*, vol. 11(9), 2018.

J2: V. Cardellini, F. Lo Presti, M. Nardelli, G. Russo Russo, "Decentralized self-adaptation policies for elastic data stream processing", *Future Generation Computer Systems*, vol. 87, pp. 171–185, 2018.

J1: V. Cardellini, F. Lo Presti, M. Nardelli, G. Russo Russo, "Optimal operator deployment and replication for elastic distributed data stream processing", *Concurrency Computat: Pract Exper.*, Vol. 30, No. 9, 2018.

International Conferences and Workshops

C4: M. Nardelli, G. Russo Russo, V. Cardellini, F. Lo Presti, "A multi-level elasticity framework for distributed data stream processing", *International Workshop on Autonomic Solutions for Parallel and Distributed Data Stream Processing (Auto-DaSP 2018)* (in conjunction with Euro-Par 2018), Turin, Italy, August 28, 2018. Published in *Euro-Par 2018: Parallel Processing Workshops*, Lecture Notes in Computer Science Vol. 11339, Springer, pp. 53-64, 2019.

C3: G. Russo Russo, "Towards Decentralized Auto-Scaling Policies for Data Stream Processing Applications", *Proceedings of 10th ZEUS Workshop (ZEUS 2018)*, Dresden, Germany, February 2018. `CEUR-WS.org/Vol-2072`.

C2: V. Cardellini, F. Lo Presti, M. Nardelli, G. Russo Russo, "Auto-scaling in data stream processing applications: A model based reinforcement learning approach", *InfQ 2017 – New Frontiers in Quantitative Methods in Informatics* (in conjunction with VALUETOOLS 2017), Venice, Italy, December 4, 2017. Communications in Computer and Information Science Vol. 825, pp. 97–110, Springer, 2018.

C1: V. Cardellini, F. Lo Presti, M. Nardelli, G. Russo Russo, "Towards hierarchical autonomous control for elastic data stream processing in the fog", *International Workshop on Autonomic Solutions for Parallel and Distributed Data Stream Processing (Auto-DaSP 2017)* (in conjunction with Euro-Par 2017), Santiago de Compostela, Spain, August 29, 2017. *Euro-Par 2017: Parallel Processing Workshops*, Lecture Notes in Computer Science Vol. 10659, Springer, pp. 106–117, 2018. `https://doi.org/10.1007/978-3-319-75178-8_9`

Rome, January 29, 2019