Alex CARREGA

Ph.D. Software & Network Engineer

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EXPERIENCE

Post Ph.D.– Research Fellow

TNT–Lab Unige

2013 – Now Genoa, Italy

- Visiting Ph.D. Scholar at Porland State University (PSU), OR, USA under the supervisor of Prof. Suresh Singh.
- Took part to the activities of many national and European projects (e.g. H2020 ARCADIA– www.arcadia-framework.eu and INPUT– www.input-project.eu , FP7 IP ECONET– www.econet-project.eu , PRIN EFFICIENT– tnt-lab.unige.it/efficient, FIRB GreenNet– tnt-lab.unige.it/greennet, and FIWARE– fiware.org).
- Collaboration with many industries, such as TI (telecomitalia.com), BROADCOM (broadcom.com), NOKIA (nokia.com), TEI * (ericsson.com), Huawei (huawei.com), etc., and industrial fora, like GeSI (gesi.org).
- Author of papers in international journals, book chapters and international conference proceedings.
- Reviewer for many different international journals and conferences.

Consultant

Ernst & Young

2008 – 2009 Milan, Italy

- CRM Salesforce.com platform for BTicino S.p.A., SAP platform for Vodafone and Intesa Sanpaolo bank.

Internship

German Aerospace Center (DLR)

2005 DE

- Study and development of image classification algorithm for SAR images.
- Experimental validation of developed image classification algorithm for multifrequency and polarimetric SAR images.
- Draft of Bachelor Thesis: Experimental Validation of Classification Methodologies for Multifrequency and Polarimetric SAR Images."

Worker

Burger King Corporation

2002 Italy

- Talc tires responsible.
- Unloading services responsible, cooking meat and sandwich preparation.

Worker

Michelin S.p.A.

2000 Italy

- Cleaning and checking tires employee.

LIFE PHILOSOPHY

"Any fool can know. The point is to understand."

EDUCATION

Ph.D. in Green Networking

University of Genoa

2010 – 2013 Genoa, Italy

M.Sc. magna cum laude in Computer Engineering

University of Genoa

2005–2007 Genoa, Italy

B.Sc. magna cum laude in Computer Engineering

University of Genoa

2002–2005 Genoa, Italy

STRENGTHS

Hard-working (18/24) | Persuasive | Motivator & Leader

Computer Networks | SDN & NFV | Green Networking & TCP / IP | Applications & Administration | Network Application & Security | Devices Evaluation & Testing

Optimization Problems | Multi-objective Programming & Game Theory | Automatic Differentiation & Stochastic Programm | Modeling Languages & Programming Environment | Neural Networks & Fuzzy Logic | Sensitivity Analysis | o

PUBLICATIONS

Books

- Jarschel, Michael et al. (2015). “SDN-Enabled Energy-Efficient Network Management”. en. In: Green Communications. Ed. by Konstantinos Samdanis et al. DOI: 10.1002/9781118759257.ch17. John Wiley & Sons, Ltd, pp. 323–338. ISBN: 978-1-118-75925-7.

Journal Articles

- Bruschi, Roberto, Alessandro Carrega, and Franco Davoli (2016). “A Game for Energy-Aware Allocation of Virtualized Network Functions”. en. In: Journal of Electrical and Computer Engineering 2016, e4067186. ISSN: 2090-0147. DOI: 10.1155/2016/4067186.
- Bolla, R., R. Bruschi, A. Carrega, and F. Davoli (2014). “Green Networking With Packet Processing Engines: Modeling and Optimization”. In: IEEE/ACM Transactions on Networking 22.1, pp. 110–123. ISSN: 1063-6692. DOI: 10.1109/TNET.2013.2242485.
- Bolla, R., R. Bruschi, A. Carrega, F. Davoli, and P. Lago (2014). “A Closed-Form Model for the IEEE 802.3az Network and Power Performance”. In: IEEE Journal on Selected Areas in Communications 32.1, pp. 16–27. ISSN: 0733-8716. DOI: 10.1109/JSAC.2014.140103.
- Bolla, Raffaele, Roberto Bruschi, Alessandro Carrega, et al. (2012). “Cutting the energy bills of Internet Service Providers and telecoms through power management: An impact analysis”. In: Computer Networks. Green communication networks 56.10, pp. 2320–2342. ISSN: 1389-1286. DOI: 10.1016/j.comnet.2012.04.003.

Conference Proceedings

- Carrega, A. and M. Repetto (2017). “A network-centric architecture for building the cloud continuum”. In: 2017 International Conference on Computing, Networking and Communications (ICNC), pp. 701–705. DOI: 10.1109/ICCNC.2017.7876215.
- – (2016). “Exploiting Novel Software Development Paradigms to Increase the Sustainability of Data Centers”. In: 2016 IEEE/ACM 9th International Conference on Utility and Cloud Computing (UCC), pp. 310–315.
- Carrega, A., S. Singh, R. Bolla, et al. (2012). “Applying traffic merging to datacenter networks”. In: 2012 Third International Conference on Future Systems: Where Energy, Computing and Communication Meet (e-Energy), pp. 1–9. DOI: 10.1145/2208828.2208831.
- Carrega, A., S. Singh, R. Bruschi, et al. (2012). “Traffic merging for energy-efficient datacenter networks”. In: 2012 International Symposium on Performance Evaluation of Computer Telecommunication Systems (SPECTS), pp. 1–5.
- Bolla, R., R. Bruschi, A. Carrega, and F. Davoli (2011). “Green network technologies and the art of trading-off”. In: 2011 IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS), pp. 301–306. DOI: 10.1109/INFCOMW.2011.5928827.
- Bolla, R., R. Bruschi, and A. Carrega (2010). “GreenSim: An open source tool for evaluating the energy savings through resource dynamic adaptation”. In: 2010 International Symposium on Performance Evaluation of Computer and Telecommunication Systems (SPECTS), pp. 89–95.
- Bolla, R., R. Bruschi, A. Carrega, and F. Davoli (2010a). “An analytical model for designing and controlling new-generation green devices”. In: 2010 IEEE Globecom Workshops, pp. 1388–1393. DOI: 10.1109/GLOCOMW.2010.5700166.

STRENGTHS

Software Development

C / C++ & MATLAB & Python

Julia & Javascript

HTML5 & CSS3

Database & Android Apps

LANGUAGES

Italian ●●●●●

English ●●●●○

French ●●○○○

Spanish ●●○○○

REFEREES

Prof. Raffaele Bolla
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University of Genoa

Prof. Franco Davoli
@ franco.davoli@unige.it
University of Genoa

- Bolla, R., R. Bruschi, A. Carrega, and F. Davoli (2010b). “Theoretical and technological limitations of power scaling in network devices”. In: 2010 Australasian Telecommunication Networks and Applications Conference, pp. 37–42. DOI: 10.1109/ATNAC.2010.5680253.
- Bolla, Raffaele, Roberto Bruschi, and Alessandro Carrega (2010). “Power Scaling in Network Devices”. In: Proceedings of the ACM CoNEXT Student Workshop. CoNEXT ’10 Student Workshop. New York, NY, USA: ACM, 9:1–9:2. ISBN: 978-1-4503-0468-9. DOI: 10.1145/1921206.1921216.