Giulio Luzzati, Ph.D.

Personal Information

Research Software Engineer
5G Innovation Centre, Guildford, UK
12, Elm Grove, Bisley
Phone: +44 07397 791131
e-mail: giulio.luzzati@live.it
LinkedIn: https://it.linkedin.com/in/giulio-luzzati-9bb79245
Born: 19/10/1984, Genova, Italy

Education

University of Genova, Genova, Italy
Ph.D. in Computer Science **Apr 2016**
Thesis topics: resource allocation, communication networks, signal processing
Professional Engineering Qualification **Oct 2012**
M.Sc. in Telecommunication Engineering **May 2012**

Professional and Academic Experience

5G Innovation Centre, Guildford, United Kingdom
Senior Research Software Engineer **Nov 2016 - Current**

At the 5GIC I am part of the core network development team, innovating in the field of the next gen 5G communication networks. Along with software design and development, I take an active role in the coordination and management of the team

AKYA ltd, Swindon, United Kingdom
DSP Software Engineer **Dec 2016 - Nov 2017**

At Akya I worked in a small team that develops frameworks and tools for a quicker and more flexible hardware design, specifically targeted at DSP applications.
My role in the team is to design and develop algorithm and software components that expand and integrate the existing framework, as well as creating testing and data visualization tools

DSP Lab, University of Genova, Genova, Italy
Post Doctoral Research Fellow **Jan 2016 - Nov 2016**
Ph.D. Student **Jan 2013 - Dec 2015**
Research Fellow **Oct 2012 - Dec 2012**

During my academic experience at the DSP Labs, as Ph.D. student and then research fellow, I carried out academic (research and teaching) activity, along with collaborations with SMEs and some of the key industries of Italy's communications and tech (Telecom Italia, Leonardo).
My main area of research were resource allocation and mathematical optimization in communication networks and in signal processing

Technical Skills and Tools

Programming Languages

C++	●●●	Python	●●●
Matlab	●●●	Latex	●●●
Java	●●●	Javascript	●○○
PHP	●●○	Bash	●○○

Network Function Virtualization and Service Oriented Architecture
Containerization (Docker, LXC)
Google Protocol Buffers and GRPC
Version control tools (Git, SVN)
Good knowledge of the Android SDK
Working knowledge of the Google Tensorflow framework
Agile software development
Advanced knowledge of GNU/Linux operating systems
Working knowledge of software compiler design

Scientific Skills

Strong experience in computer networks
Strong background in signal processing
Statistics, mathematical optimization and data science
Experience in machine learning
Scientific writing and teaching

Publications

Igor Bisio, Fabio Lavagetto, Giulio Luzzati and Andrea Sciarrone, "A Novel Active Warden Technique for Image Steganography", accepted IEEE GLOBECOM 2016.

I. Bisio, A. Fedeli, F. Lavagetto, G. Luzzati, M. Pastorino, A. Randazzo, and E. Tavanti, "Brain Stroke Detection by Microwave Imaging Systems: Preliminary Two-Dimensional Numerical Simulations", submitted to 2016 IEEE International Conference on Imaging Systems and Techniques (IST 2016)

Igor Bisio, Alessandro Fedeli, Fabio Lavagetto, Giulio Luzzati, Matteo Pastorino, Andrea Randazzo, and Emanuele Tavanti, "Hemorrhagic Brain Stroke Detection by using Microwaves: Preliminary Two-dimensional Reconstructions", IV Convegno Nazionale "Interazione tra Campi Elettromagnetici e Biosistemi", Milano, 4-6 July 2016.

Igor Bisio, Fabio Lavagetto, Giulio Luzzati, "Cooperative Application Layer Joint Video Coding in the Internet of Remote Things", submitted to the IEEE Internet of Things Journal.

Igor Bisio, Giulio Luzzati and Andrea Sciarrone, "Cell-ID Meter App: a Tester for Coverage Maps Localization Proofs in Forensic" Investigations, 7th IEEE International Workshop on Information Forensics and SecurityRome, Italy, 16-19 November, 2015

Igor Bisio and Stefano Delucchi and Fabio Lavagetto and Giulio Luzzati and Mario Marchese, "Cooperative Application Layer Joint Coding and Rate Allocation Techniques for Video Transmissions over Satellite Channels through Smartphones", accepted to IEEE ICC 2015 SAC - Satellite and Space Communications (ICC'15 (01) SAC6-SSC)

Igor Bisio, Fabio Lavagetto, Giulio Luzzati, Mario Marchese, "Smartphones Apps Implementing a Heuristic Joint Coding for Video Transmissions over Mobile Networks", International Journal of Mobile Networks and Applications (MONET).

Igor Bisio, Aldo Grattarola, Fabio Lavagetto, Giulio Luzzati, Mario Marchese, "Application Layer Source-Channel Video Coding for Transmission with Smartphones over Satellite Channel", Proc. The Sixth International Conference on Advances in Satellite and Space Communications (SPACOMM), February 23 - 27, 2014 - Nice, France.

Igor Bisio, Fabio Lavagetto, Giulio Luzzati, Mario Marchese, "Smartphones Apps Implementing a Heuristic Joint Coding for Video Transmissions over Mobile Networks", 6th International Conference on Personal Satellite Services, July 2014, Genoa, Italy

Igor Bisio, Aldo Grattarola, Fabio Lavagetto, Giulio Luzzati, Mario Marchese, "Performance Evaluation of Application Layer Joint Coding for Video Transmission with Smartphones Over Terrestrial/Satellite Emergency Networks", Proc. IEEE International Conference on Communications 2014, ICC 2014, 10 – 14 June 2014, Sydney, Australia - Best Paper Award winner

Bisio, I.; Delfino, A.; Luzzati, G.; Lavagetto, F.; Marchese, M.; Fra, C.; Valla, M., "Opportunistic estimation of television audience through smartphones," Performance Evaluation of Computer and Telecommunication Systems (SPECTS), 2012 International Symposium on , vol., no., pp.1,5, 8-11 July 2012