

mattiazeni

software engineer / data scientist

contacts

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languages

italian native speaker
english fluent

skills

hard worker
multitasking
love new challenges
team work

programming

Java, Python,
C++, C,
Objective-C,
HTML5, PHP,
Javascript,
Matlab, Fortran
♥ macOS
mongodb, cassandra
SQL

interests

professional:

data analysis
knowledge
management
semantic
bigdata
pervasive computing
software development
machine learning

personal:

travelling
basket
motorsports

education

aug 2013 - now

PhD in Computer Science

University of Trento, Italy

Research Topic: *Semantic driven activity recognition.*

The goal of my PhD thesis is to create a framework for activity recognition that uses semantic models to enhance the final accuracy. The idea is to model human and environment behaviors and use this information in the recognition phase in a complementary fashion with machine learning techniques.

Advisor: Prof. Fausto Giunchiglia

oct 2010 - jul 2013

MSc in Telecommunication Engineering

University of Trento, Italy

International Master Degree. Focused on the world of Information and Communication Technology - Telecommunications, Electromagnetic Fields, Electronics and Computer Science.

Final Thesis: *Design and Prototyping of a Social File Sharing System Over Opportunistic Mobile Networks* (Demo Paper at Percom 2013 Conference)

Final Score: 107/110

sep 2007 - oct 2010

BSc in Telecommunication Engineering

University of Trento, Italy

Final Thesis: *Finite element analysis of a piezoelectric device for energy harvesting.*

experience

sep 2013 - now

UNIVERSITY OF TRENTO

Trento, Italy

Teaching Assistant

Acting as a support to the teacher for a class of Engineering students. The course was about C++/Java object oriented programming.

jun 2015 - aug 2015

IBM RESEARCH

Nairobi, Kenya

Research Scientist

Working on Watson core components for NLP and text semantic analysis. The final goal was to analyze million of pages of newspapers and extract semantic information to be fed into a Q/A system.

oct 2014 - dec 2014

AUTONOMOUS PROVINCE OF TRENTO - Iprase

Trento, Italy

Professor

Attended two sessions of Computer Science's courses, in collaboration with the University of Trento.

jun 2014 - dec 2014	CREATE-NET RESEARCH CENTER <i>Web Chair</i> Web Chair of Valuetools International Conference on Performance Evaluation Methodologies and Tools 2014.	Bratislava, Slovakia
mar 2014 - now	UNIVERSITY OF TRENTO <i>Smart Society internal WP3 leader for University of Trento.</i> Responsible of the implementation and management phases for Work Package 3 in Smart Society EU FP7 Project.	Trento, Italy
2012 - now	ANDROID DEVELOPER <i>Android application Developer</i>	Trento, Italy
feb - jul 2014	UNIVERSITY OF TRENTO <i>Project Manager</i> Project Manager of two groups of students within the Master Degree course Multimedia Networking.	Trento, Italy
may - oct 2013	CREATE-NET RESEARCH CENTER <i>Junior Research Engineer</i> Working on SOCIAL-IST and CONGAS FP7 projects (7-th Framework Programme for Research and Technological Development). My role was to propose, design and implement software solutions.	Trento, Italy
may - oct 2010	FBK - FONDAZIONE BRUNO KESSLER <i>Research Scientist in the BioMEMS unit.</i> <i>Overseer: Lorenzelli Leandro.</i> FBK is the Research Center of Provincia Autonoma di Trento. Research activity in the fields of materials, microsystems and information technology. Study and analysis of piezoelectric materials. Design, fabrication and test of a piezoelectric device for energy harvesting from movement. The analysis have been conducted with Ansys software.	Trento, Italy
2009 - 2010	UNIVERSITY OF TRENTO <i>150h. student collaboration.</i> Person responsible for the reception at the Faculty of Engineering - Mesiano.	Trento, Italy
2005 - 2006	AQUILA BASKET <i>Assistant trainer to a basketball team.</i>	Trento, Italy

international experience

- jun 2015 - aug 2015 **IBM RESEARCH** Nairobi, Kenya
Research Scientist
Internship at IBM Research Lab in Nairobi, Kenya.
- feb 2014 **UNITN - DFKI Collaboration** Kaiserslautern, Germany
The aim of this experience was to setup a collaboration between our research group at the University of Trento and the research group at DFKI (Deutsche Forschungszentrum für Künstliche Intelligenz). The scope was to work on “bridging the semantic gap” between low level sensor data and high level semantic, designing and implementing a working solution.
This topic is the one I am developing for my PhD Thesis and is fitting also for Smart Society FP7 project.
In this experience, I was Project Leader for University of Trento.

training and team projects

- 2012 - 2013 **UNIVERSITY OF TRENTO** Trento, Italy
Project related to the course “Antenna for Wireless Communications”.
The objective of the project is to refine the algorithm for the estimation of the Direction of arrival of signals impinging on an array antenna. The algorithm uses Bayesian Compressing Sensing Techniques in order to estimate the DOA. The refinement strategy presented in the project consists in an iterative refinement of the grid of possible DOA's after a first rough approximation.
- 2012 **UNIVERSITY OF TRENTO** Trento, Italy
Project related to the course “Multimedia Networking”.
Design and prototype of a Dropbox-like application for multimedia content able to exploit opportunisticly transmission opportunities.
- 2012 **UNIVERSITY OF TRENTO** Trento, Italy
Project related to the course “Network Design and Communication Systems”.
Hands on Cisco Packet Tracer
- 2011 - 2012 **UNIVERSITY OF TRENTO** Trento, Italy
Project related to the course “Embedded Electronics Systems”.
Realization of a multi-user chat for a wireless environment with eZ430-RF2500 and MRFI protocols. Nodes can communicate with each other by means of a broadcast or a unicast strategy. In the latter case, a simple congestion control is performed on the transmission channel and if this one results to be too crowded the transmitting frequency is changed in a completely transparent way to the user.

- 2012 **UNIVERSITY OF TRENTO** Trento, Italy
Project related to the course "Digital System Electronics".
 Realization of a high availability replicated locking service responsible for allowing or denying clients access to the files managed by the servers.
- 2012 **UNIVERSITY OF TRENTO** Trento, Italy
Project related to the course "Electromagnetic Compatibility".
 The objective of the project was to verify, through simulations, the results obtained in C63.4- 2003 American National Standard, which establish methods, instrumentation and facilities for measurement of radiofrequency (RF) signals and noise emitted from an electric/electronic sources. For the simulations has been used the 2-D 3-D Antenna software modeler 4NEC2.
- 2010 **UNIVERSITY OF TRENTO** Trento, Italy
Project related to the course "Digital System Electronics".
 The objective of the project is to program an FPGA in VHDL using ISE Xilinx software.
- 2010 **UNIVERSITY OF TRENTO** Trento, Italy
Project related to the course "Electronic Systems Design".
 Design and fabrication of an accelerometer-based game controller and creation of its firmware.
- 2009 - 2010 **UNIVERSITY OF TRENTO** Trento, Italy
Project related to the course "Design Techniques for Wireless Communications".
 Analysis of Multipolarization Multifrequency arrays. The objective of the project was to analyze and simulate the behavior of these type of structures.

publications

- M. Zeni, D. Miorandi and F. De Pellegrini, **Understanding the Diffusion of YouTube Videos**, Proceedings of ECCS 2014, Springer Proceedings in Complexity, 2016.
- M. Zeni, E. Ondula, R. Mbitiru, A. Nyambura, L. Samuel and K. Fleming, **Low-power Low-cost Wireless Sensors for Real-time Plant Stress Detection**, ACMDev, London, UK, November 30 - December 2, 2015.
- M. Zeni, E. Bignotti, F. Giunchiglia, G. Bahle, A. Gruenerbl and P. Lukowicz, **Recognizing Hospital Care Activities with a Coat Pocket Worn Smartphone**, "MobiCASE", Austin, TX, USA, November 6-7 2014. **Best Paper Award**
- M. Zeni, F. Giunchiglia and I. Zaihrayeu, **Multi-device Activity Logging**, "UbiComp - ACM International Joint Conference on Pervasive and Ubiquitous Computing", Seattle, WA, USA, September 13-17 2014.
- M. Zeni, D. Miorandi and F. De Pellegrini, **YOUStatAnalyzer: a Tool for Studying User Generated Content Popularity**, "Valuetools - 7th International Conference on Performance

Evaluation Methodologies and Tools”, Torino, Italy, December 10-12 2013.

M. Zeni, C. Caprini, N. Conci, D. Miorandi and I. Carreras, ***TinyBox: Social, Local, mobile Content Sharing***, “IEEE International Conference on Pervasive Computing and Communication (PerCom 2013)”, San Diego, California, USA, March 18-22 2013.

patents

Zeni, M.; Osamuyimen, S. T.; Weldemariam, K.; “System and Method for Automatic Detection and Clustering of Article’s Stories in Newspapers using Multimedia Information” 2015, U.S. Patent No. YOR920151290US1.

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