

PERSONAL INFORMATION **Andrea Piermarteri**

Sex: Male | Date of birth 23/12/1989 | Nationality Italian

RESEARCH EXPERIENCE

- Publications**
- Tailoring Micro-solar Systems to Heterogeneous Wireless Sensor Networks**
S. Calabrò, R. Gagliardi, F. Marcantoni, M. Micheletti, A. Pacini, A. Piermarteri
- MIRTO: an open-source robotic platform for education**
K. Androutsopoulos, L. Aristodemou, J. Boender, M. Bottone, E. Currie, I. El-Aroussi, B. Fields, L. Gheri, N. Gorogiannis, M. Heeney, M. Micheletti, M. Loomes, M. Margolis, M. Petridis, A. Piermarteri, G. Primiero, F. Raimondi, N. Weldin
- Rotating energy efficient clustering for heterogeneous devices (REECHD)**
M. Micheletti, L. Mostarda, A. Piermarteri
- PICO-MP: de-centralised macro-programming for wireless sensor and actuator networks**
N. Dulay, M. Micheletti, L. Mostarda, A. Piermarteri
- Conferences**
- The 32nd IEEE International Conference on Advanced Information Networking and Applications (IEEE AINA 2018)**
Presentation of the paper: "PICO-MP: de-centralised macro-programming for wireless sensor and actuator networks".
- The 3rd International Workshop on Engineering Energy Efficient WSNs (EEEWSN - 2016)**
Helped with the organisation of the 3rd International Workshop on Engineering Energy Efficient WSNs (Publicity).

Projects **PICO-MP**

Design and development of an energy efficient publish-subscribe middleware for wireless sensor networks, with a first order logic based subscription language.

PICO-MP is the main topic of my PhD in UNICAM.

A4WSN

Development of an extensible programming framework for Wireless Sensor Networks, in collaboration with UNICAM and UNIVAQ.

Designer and Programmer of the framework's UI and connectors with Analysis and Code Generation plugins, using the Eclipse framework and Java.

Homeland Security

Analysis of how the technologies of heterogeneous and cooperative wireless networks can provide a significant contribution in monitoring and control of land and/or sensitive perimeters.

I wrote surveys about security and trustness technologies in ports environment, in collaboration with UNIVAQ.

ESSNet CORE

CORE (COmmon Reference Environment) is an ESSNet (network of several European Statistical System organisations) project for the realization of a complete information model for process modeling, and for the development of a software environment for the automated execution of statistical processes upon it.

In this project, I extended the Oryx Framework with a custom StencilSet for the graphical representation of statistical processes of CORE.

Honours and awards **AINA 2018 – Best Paper Award**

"PICO-MP: de-centralised macro-programming for wireless sensor and actuator networks" has been awarded as the best paper of the AINA 2018 conference.

Admission to GSSI Computer Science PhD Programme

I have been admitted to the Gran Sasso Science Institute PhD Programme in Computer Science (Academic Year 2015/2016); I had to decline that position on personal grounds.

TEACHING EXPERIENCE

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- 01/03/2020–30/06/2020 **Tutoring: Programming (first year) course**
UNICAM, Camerino (Italy)
Tutoring activity on the course of Programming (first year):
- lectures (excersises);
- communication with the students;
- support during exams.
- 01/03/2020–30/06/2020 **Tutoring: Computer Architecture course**
UNICAM, Camerino (Italy)
Tutoring activity on the course of Computer Architecture:
- lectures (excersises);
- communication with the students;
- support during exams.
- 07/10/2019– 30/01/2020 **Contract professorship: Embedded Systems Architecture**
UNICAM, Camerino (Italy)
Embedded Systems Architecture course in UNICAM's Computer Science Master Degree programme.
Frontal classes on architectural details for embedded systems, lab activities on embedded systems programming and development.
Group exams on embedded systems lab projects.
- 08/01/2018– 20/04/2018 **Hourly Paid Lecturer: Computer Science – First Year**
Middlesex University, London (United Kingdom)
Computer Science – First Year course in MDX's Computer Science bachelor degree programme.
Frontal classes with students with excersises and various activities.
- 26/10/2016–25/01/2017 **Tutoring: Embedded Systems Programming course**
UNICAM, Camerino (Italy)
Tutoring activity on the course of Embedded Systems Programming:
- lectures (excersises);
- communication with the students;
- support during exams.
- 10/03/2015–19/05/2015 **Tutoring: Sensor Networking course**
UNICAM, Camerino (Italy)
Tutoring activity on the course of Sensor Networking:
- lectures (excersises);
- communication with the students;
- support during exams.
- 19/11/2013–04/02/2014 **Tutoring: Computer Architecture course**
UNICAM, Camerino (Italy)
Tutoring activity on the course of Computer Architecture:
- lectures (excersises);
- communication with the students;- support during exams.

EDUCATION AND TRAINING

- 30/11/2015 - 21/10/2020 PhD in Computer Science
Unicam, Camerino (Italy), XXXI Cycle.
Thesis: "PICOMP: a distributed energy efficient middleware for WSANs"
Supervisor: Professor Leonardo Mostarda
- 01/10/2011–30/07/2014 Master Degree in Computer Science
Unicam, Camerino (Italy)
General Results: 110/110 cum laude.

Final Dissertation: Analysis & Development of an extensible Programming Framework for Wireless Sensor Networks.

Main topics of the course:
- Complex Systems development and simulation;
- Advanced English;
- DataWarehouse;
- Distributed Systems;
- Theory of Complexity;
- Cisco CCNA certification.
- 01/09/2008–15/12/2011 Bachelor Degree in Informatica
Unicam, Camerino (Italy)
General Results: 110/110 cum laude.

Final Dissertation: EXTENDING ORYX FRAMEWORK FOR BPM: DESIGN & IMPLEMENTATION

Main topics of the course:
- Mathematics Fundamentals;
- English;
- Programming skills (Java, C, C++);
- Logic and Theory of Computer Science;
- DataBase Development;
- Advanced Software Systems Engineering.
- 01/09/2003–15/06/2008 Diploma di Ragioniere Programmatore
Istituto Tecnico Commerciale A. Gentili, Macerata (Italy)
- Italian expression;
- Mathematics;
- Professional calculus;
- Foreign Languages (English, French);
- Physical education;
Professional Sector:
- Knowledge of the enterprise and its economic, juridical and social environment;
- Knowledge of the main legal and operating praxis in economy and finance;
- Basic programming and pc use.

WORK EXPERIENCE

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- 01/01/2015–30/06/2015 **Scholarship holder**
UNICAM, Camerino (Italy)
Scholarship for scientific support to MOOCs creation.
Supported the creation of scientific MOOCs (Massive Open Online Courses), teaching materials upkeep and maintenance, communication with students.
- 15/02/2014–15/10/2014 **Computer systems analyst**
Nobody s.r.l., Camerino (Italy)
Software development, web development, dba, assistance, development and maintenance of DataWarehouse in public sector (Regione Marche).
- 01/09/2012–01/10/2012 **Research and development department manager**
Filippetti s.p.a., Falconara (Italy)
Research and comparison of different software solutions for Big Data.
- 01/04/2011–01/06/2011 **Software Developer**
ISTAT, Roma (Italy)
Stage for development of applications to interface many analysis tools into the EUROSTAT environment.

PERSONAL SKILLS

Mother tongue(s) Italian

| Other language(s) | UNDERSTANDING | | SPEAKING | | WRITING |
|-------------------|---------------|---------|--------------------|-------------------|---------|
| | Listening | Reading | Spoken interaction | Spoken production | |
| English | B2 | C1 | C1 | B2 | C1 |
| French | A2 | B1 | A1 | A1 | A2 |

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills Good communication skills, acquired through the interaction with professors and students into the University, both in Italian and English.
 No difficulties in oral presentation and public speaking, also due to the live music activity.

Organisational / managerial skills Able to organise his own and other people work, having successfully coped with group projects with limited time and limited resources, mostly in the academic field.

Job-related skills Very advanced knowledge and skills in the ICT field.

Digital competence

- Software Development (Java, Python, TypeScript, C, C#, Javascript), mostly desktop, backend, mobile and embedded, with some surface knowledge of frontend programming (React);
- Use of different versioning systems (Git/SVN);
- Database development and management;
- strong awareness of security issues;
- Very good skills in computer networking (Cisco CCNA certification);
- use of UML and design tools;
- use of OS (Linux and Windows), and many applications packages (Office, OpenOffice, Audacity, Gimp, etc...), privately acquired during years.

Other skills

- good at playing guitar and singing;
- I can also play bass guitar, drums and piano.

Driving licence B

Date: 02/03/2021

Signature: