

LIVIO POMPIANU

DIPARTIMENTO DI MATEMATICA E INFORMATICA

VIA OSPEDALE 72

09124 CAGLIARI, ITALY

EDUCATION

PhD in COMPUTER SCIENCE at University of Cagliari, Italy, November 2014 – October 2017
Advisors: Prof. Massimo BARTOLETTI, Prof. Maurizio ATZORI

MSc in COMPUTER SCIENCE at University of Cagliari, Italy, October 2012 – September 2014
Final Mark: 109/110 GPA: 28.55/30 Thesis: "A contract-oriented middleware" | Advisor: Prof. Massimo BARTOLETTI

BSc in COMPUTER SCIENCE at University of Cagliari, Italy, October 2009 - July 2012 Final Mark: 110/110 with honours GPA: 27.95/30 Thesis: "Visual Engine for Reading On Network In Comprehensive Acceptation" | Advisor: Prof. Massimo BARTOLETTI

WORK EXPERIENCE

Teacher at Unitelsardegna, Cagliari. September 2014 – November 2014 I was in charge to teach to farm owners material developed by full professors. The material describes certified email, digital signature and other tools required to dialogue with public administration. I filled the gap between professor language and farmer knowledge, increasing the number of users who passed the final exam.

Research Intern at TCS research group, University of Cagliari. March 2014 – October 2014 Developing distributed applications typically requires to interact with untrusted services. The main goal of my internship was exploit a theory of timed behavioural contracts to formalise, design and implement a message-oriented middleware where distributed services can be dynamically composed, and their interaction monitored to detect contract violations. I used JavaEE, Ocaml, Uppaal and JUnit. The results show that the middleware allows to reduce the complexity of developing distributed applications, by relieving programmers from the need to explicitly deal with the misbehaviour of external services. The middleware was part of my MSc thesis and it was published at FACS 2015.

Teaching assistant at University of Cagliari. March 2013 – Current As teaching assistant I prepare my own material and conduct (in place of the professor) laboratory lectures of 3 hours. I have worked 4 times as teaching assistant of programming 2 (150 bachelor students) and 2 times as teaching assistant of Security Fundamentals (40 master students). In both courses my work led to an increasing of the final evaluation (from the students) about the quality of the course, respect to previous years.

Developer at Xorovo, Cagliari. July 2012 – September 2012 My goal was to work to the Appdoit project. I developed several application modules using HTML, CSS, Javascript, JQuery and then I worked to test all the application.

Intern at University of Cagliari. February 2012 – June 2012 I led a team of 5 students with the goal to study and develop a web platform to help dyslexic children doing homework. The system needed a voice synthesizer to read different kinds of books. I collaborated with different stakeholders: the health department of the Autonomous Region of Sardinia and researchers from the Law department of our University. I also developed several client modules using HTML, CSS, Javascript. The final result was part of my BSc thesis that was awarded the best grade possible.

OTHER WORKS

Co founder and secretary at A.S.D. MarrubiuRedTal Marrubiu, Italy. **April 2009 - Current** MarrubiuRedTal is a non profit sport association, it is a chess club. My main responsibility is to organize events and tournaments. I help to find sponsors, negotiate convention with local companies (e.g. B&B), write documents for asking public authorizations, redact records and financial statements.

Blood donor at A.V.I.S. Marrubiu, Italy **May 2008 - Current** Sardinia is one of the areas with the highest concentrations of thalassemia patients (12% of population). Blood transfusions are indispensable. Even if I successfully used my computer science knowledge with the aim to simplify some internal procedures, my main contribution is to done my blood each 3 months.

COMPUTER SKILLS

Didactic, work and academic experience *Java*.

Work and academic experience OS: *Linux, Windows*. **Client side:** *HTML, CSS, JavaScript, JQuery, JavaFX*. **Server side:** *JavaEE, Apache, SQL, PHP, XML, Bash*. **Testing:** *JUnit*. **Formal verification:** *Uppaal, Ocaml*. **IDE:** *Netbeans, Eclipse*. **Version control:** *Mercurial, GIT*. **Documents and presentations:** *LaTeX, Drive, OpenOffice*.

Academic experience *C, C++, Qt, Matlab, UML, Android*.

MISCELLANEOUS

Programming Competitions Startup Weekend Cagliari 2014

Publications

- M. Bartoletti, T. Cimoli, M. Murgia, A. S. Podda, and L. Pompianu. A contract-oriented middleware, 2015. Proceedings of the 12th International Conference on Formal Aspects of Component Software (FACS 2015).
- M. Bartoletti, T. Cimoli, M. Murgia, A. S. Podda, and L. Pompianu. *Compliance and sub-typing in timed session types*. Proceedings of the 35th IFIP International Conference on Formal Techniques for Distributed Objects, Components, and Systems. (FORTE 2015). Pages 161-177.

PhD Schools Bertinoro International Spring School 2015, courses: Game Theory: Models, Numerical Methods, and Applications; Protection of sensitive information; Introduction to Modern Cryptography.

Talks Innova.re I presented our research group to local companies

Awards and achievements

- First prize at the 5^o edition of the national contest Michele Mazzella: I acted in my high school theatre company for 3 years.
- Scholarship for entering in the National Register of Excellence from the Italian Ministry of Education

Languages Italian (mother tongue), English (B1 Written-Spoken)

Research Interests Computer security, programming languages, distributed systems.

Personal Interests RTS video games, Travelling, Movies, Chess, Theatre, Run