



# Alessandro Candolini

## Curriculum Vitæ

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### Work experiences

September 2014 – **Spotlime**, *Mobile software engineer*, Milan, Italy.

now I am responsible of the implementation design, development, QA and release of native Android application for Spotlime, a startup that provides an app to discover the best events in Milan and Rome. Experience in: client-server synchronization, sqlite, background services and activity-service communication, credit card payment, integration with social channels, analytics, maps and geolocation. Knowledge of SDKs: Facebook, Google Play Services, AppsFlyer, android ORMLite, GSON, EventBus. Working alongside marketing team to deliver a product closer to real user needs, promoting solutions that helps improving user experience in response to end user feedback and analytics data. Working alongside server-side and iOS developers to coordinate the upcoming releases. Spotlime website: <http://www.spotlimeapp.com/it/home/>

October 2012 – **Usablenet - leading global mobile and multi-channel technology company.**, *Lead Quality Assurance Analyst*, Udine, Italy.

August 2014

After few months working as a quality assurance analyst, I have soon become quality assurance team leader at Usablenet, a multichannel technology company. My roles include:

- working in synergy with web developers, project manager, solution engineer team and client to consistently deliver high-quality products that fulfills customer expectations
- monitor and track project status during all steps, to meet deadlines and ensure all scope changes, variances and contingences that may arise during the projects lifecycle were visible to all people involved
- be a go-to person in the team.
- Ability to prioritize and track multiple projects in parallel, manage allocation of resources within the team, supervise and support my team activities
- test plan and test cases creation using TestLodge
- promote new strategies to speed up effective communication among all teams involved in the project, improving workflows and defining new internal procedures
- debugging and monitoring of customized web analytics solutions;
- training and integration of people who join the company;
- helping communication between developers and client about technical requirements (for example requirements involving collaboration with akamai technologies)
- developing small scripts (mainly using Python+JQL) which help to retrieve project information from Jira and provide automatic statistical reports about project status

I have been personally responsible as QA analyst of the following: Camelot Group (UK National Lottery, including the launch of the mobile website with the new lotto raffle on October 2013), Dell Inc. (22 countries around the world including US, UK, JP, China mobile websites), FedEx, MaryKay, Selfridges, Surfstitch and many others. I have also been involved in 24/7 QA support, which requires ability to quickly gain familiarity with unknown projects, provide insights to understand the problem and test if it has been solved successfully. Company website: <http://usablenet.com/>

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- 2006 – 2012 **University of Udine**, *Teacher (on call)*, Udine.  
 I have been asked to teach the *Esercitazioni guidate di Fisica per il Corso di preparazione al Test di ammissione alla Facoltà di Medicina e Chirurgia* at the University of Udine (support training lectures organized for students who have to perform the examination test to enter the first year at the faculty of Medicine).
- September 2011 – August 2012 **R.U.E. Riserse Umane Europa (no-profit association)**, *IT technical expert (on call)*, Udine.  
 Handling the IT issues in a small office (5 employees): pc, network and website maintenance
- January 2010 – December 2010 **Consorzio per la Fisica**, *L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> typesetter*, Trieste.  
 I typeset prof. E. Gozzi lectures notes for his course of Quantum Mechanics. The notes are currently available at <http://www-dft.ts.infn.it/~gozzi/QM2.pdf>
- February 2008 – May 2008 **I.N.F.N. (Istituto Nazionale di Fisica Nucleare)**, *C++ developer as volunteer*, Trieste.  
 Development of a object-oriented C++ library for uniform and non-uniform pseudo-random number generations, including some state-of-art algorithms

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## Education and training

- September 2009 – now **Master student in Theoretical Physics**, *University of Trieste*, Trieste (Italy),  
 Not completed yet.  
 Not completed yet due to work. I have successfully done exams including: advanced statistical mechanics, field theory, advanced mathematical methods and computational physics, including C++ implementation and comparison of symplectic algorithms for numerical integration of ordinary differential initial valued problems in classical molecular dynamics and monte carlo simulation of statistical mechanics system like Ising model
- September 2009 **Bachelor's degree in Physics**, *University of Trieste*, Trieste (Italy), 110/110.  
 Thesis title: *Simulazione numerica dello stress termomeccanico in un ellissometro*. Advisor: Prof. E. Milotti. Description: Numerical investigation of the influence of laser beam-pointing fluctuations on the thermomechanical stress-induced birefringence in the optical ellipsometer of PVLAS experiment. The thesis required 1 year of advanced C++ programming including the development of an object-oriented library for finite-element analysis in rectangular domains and numerical integration of Ito stochastic differential equations.
- July 2005 **Scientific high school diploma**, *Liceo Scientifico Statale G. Marinelli*, Udine (Italy), 100/100.  
 High school's thesis in Physics: *Approccio spazio-temporale globale alla teoria quantistica e formulazione di Feynman della QED*. Advisor: Prof. F. de Stefano

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## Continuing Education

- December 17, 2014 **Machine Learning**, *Coursera*.  
 Statement of Accomplishment of Machine Learning course by Professor Andrew Ng from Stanford University. Website of the course: <https://www.coursera.org/learn/machine-learning/home/info>
- 20 August 2013 - 23 August 2013 **School on Supersymmetry and Unification of Fundamental Interactions (Pre-SUSY 2013)**, *ICTP*, Trieste (Italy).  
 Attended the School on Supersymmetry and Unification of Fundamental Interactions as participant. Website of the school: <http://presusy2013.ictp.it/>
- 13 May 2013 - 17 May 2013 **Workshop on Ultracold Atoms & Gauge Theories**, *ICTP*, Trieste (Italy).  
 Attended Workshop Ultracold Atoms & Gauge Theories as participant at the International Center for Theoretical Physics (ICTP). Webpage of the course: [http://cdsagenda5.ictp.trieste.it/full\\_display.php?id=a12184](http://cdsagenda5.ictp.trieste.it/full_display.php?id=a12184)

20 August 2012 – **Workshop on Majorana Fermions, Non-Abelian Statistics and Topological Quantum Information Processing**, *ICTP*, Trieste (Italy).  
24 August 2012

Attended Workshop on Majorana fermions, Non-abelian Statistics and Topological Quantum Information Processes as participant at the International Center for Theoretical Physics (ICTP). Webpage of the workshop: [http://cdsagenda5.ictp.trieste.it/full\\_display.php?email=0&ida=a11183](http://cdsagenda5.ictp.trieste.it/full_display.php?email=0&ida=a11183)

February 2010 **Lectures of Introduction to Bayesian methods**, *University of Trieste*, Trieste (Italy).

I attended *as volountear* the Ph.D. course of Introduction to Bayesian methods (Prof. E. Milotti). Lectures addresses Ph.D. students in Physics at university of Trieste. Topics covered include: Bayesian inference, Maximum-Entropy and its applications to image restoration, EM algorithm, Markov-Chain Monte Carlo, introduction to naive Bayesian learning and Bayesian classifiers (AUTOCLASS). Webpage of the course: <http://wwwusers.ts.infn.it/~milotti/Didattica/StatisticaAvanzata/index.html>

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## Other experiences

2000-2007 **A.F.A.M. (Associazione Friulana di Astronomia e Meteorologia**, Remanzacco, Udine (Italy).

Data reduction of VHF radio forward scatter meteor observations and detection of Jupiter decametric radio emissions (as a part of NASA's radio JOVE project). Data reduction for meteor activity were published monthly on the official RMOB bolletin and, at least in one occasion, cited in a referred paper by Alastair McBeath: WGN **31**:264–68 (2003). Observations on Quadrantids were published in a referred paper.

Several small projects of statistical data analysis and data visualization in C and C++.

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## Scholarships

2009 **University College for Sciences “Luciano Fonda”**, Trieste (Italy).

I won the scholarship in Physics for academic achievements. The evaluation of the candidates was based on an oral examination and the documents supporting the application (curriculum vitae et studiorum, certificate indicating the exams sat and the marks obtained and two letters of presentation).

2005–2008 **University College for Sciences “Luciano Fonda”**, Trieste (Italy).

I won the scholarship in Physics for academic achievements and maintained it for the three years of undergraduate studies. The evaluation of the candidates was based on writing and oral examination. In order to maintain the right to the scholarship students had to sit all the exams set for each year within the following 31st October and to obtain an *average mark of at least 27/30* for the exams sat in the academic year and *no less than 24/30* in any one exam.

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## Publications

2003 W. Boschin, D. Ganzini, A. Candolini, G. Candolini, **Radio Observations of the 2002 December Ursids from North-Eastern Italy**, WGN, **31**:1 29–30 (2003)

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## Languages

Primary Language **Italian**

Secondary Language **English (level B2 advanced)**      2006, *University of Cambridge First Certificate (F.C.E.)*

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## Computer science skills

OS Linux, MacOS, Windows

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Programming Languages	C++, Android, Python, C, FORTRAN 90. Experiences with D, Java, Shell BASH, HTML
Protocols	XML, JSON
Database	SQL, JQL
IDE and editors	VI (I'm a proud VI fan), Sublime Text Editor, Eclipse, Android Studio
Typesetting	L <sup>A</sup> T <sub>E</sub> X 2 <sub>ε</sub>
Tools for software development and testing	Atlassian Inc. JIRA, Asana, Atlassian Confluence, Atlassian TestLodge, CVS, command-line git, GitHub, BitBucket, SourceTree, Asana
Programming environments	Mathematica, Octave/MATLAB
Scientific libraries and tools	Cern ROOT framework, gnuplot, Asymptote Vector Graphics Language, META-POST, GNU Scientific Library, fftw3, HDF5

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## Scientific Interests

- Quantum and Statistical Field Theory
- Topological Quantum Computing and Anyons
- Statistical data analysis and big data
- Object-oriented high-performance scientific computing

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## Hobbies

- Molecular cocktails, modern mixology, bartending and gin
- Listening to blues and progressive rock (especially Eric Clapton, Joe Bonamassa, Mark Knopfler, Eric Johnson)
- Reading books (I love Dostoevskij)
- Typography (I love R. Bringhurst's *Elements of Typographic Style*)
- Walking with my Siamese cat Ciambella