Curriculum Vitae
Linda Di Geronimo

PERSONAL DETAILS

Date of Birth	**June 07, 1989**
Birthplace	**Battipaglia (SA), Italy**
Resident	**Zurich, Switzerland**
Citizenship	**Italian**
Languages	
Cellphone	**+41765373424**
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EMPLOYMENT

2018-Current Postdoc at University of Zurich, Department of Informatics.
2013-2018 Research and Teaching Assistant, Department of Computer Science, ETH Zurich.

EDUCATION

2013-2018 *PhD in Computer Science*, ETH Zurich. Supervisor: Professor Moira C. Norrie.

2011-2013 *Master Degree* in *Computer Science* completed *cum laude* with the thesis: *"X-Theme Generator"*. Work published at ICWE [10,11]. Thesis conducted at ETH Zurich (Switzerland) during ERASMUS project. Supervisor: Professor M. C. Norrie.

2008-2011 *Bachelor Degree* in *Computer Science* completed *cum laude* with the thesis: "*Design and Development of a Genetic Algorithm for White-Box Testing*". Work Published at the ICST [13]. Thesis conducted at Universita di Salerno (Italy). Supervisor: Professor Filomena Ferrucci.

2004–2008 *Computer Science Expert Diploma* with a final grade of 89/100. ITIS B. Focaccia, Salerno (Italy).

RESEARCH INTERESTS

HCI, Web Engineering, Software Engineering.

TEACHING EXPERIENCE AT ETH

2015-2018 Human Computer Interaction (Lectures, Exercises, Examinations)
2015-2018 Mobile and Personal Information Systems (Lectures, Exercises, Examinations)
2014-2018 Seminar on Computer-Supported Cooperative Work (Student supervision)
2014-2018 Information System Laboratory (Student supervision)
2013-2018 Bachelor and Master Thesis (Student supervision)
2014-2017 Web Engineering (Lectures, Exercises, Examinations)
2015-2016 Informatik, for Math and Physic department (Lectures, Exercises, Examinations)
2016 Certificate in teaching techniques obtained during the "*Learning to Teach"* class

SCHOLARSHIPS AND AWARDS

2016 *Best Paper Award* at Intl Conference on Web Engineering, Lugano (Switzerland)
2011/2012 ERASMUS Scholarship
2011/2012 *Best Project Award* during the International HUMAIN Project.
2011/2012 Scholarship from Universita di Salerno for completing the bachelor degree in 3 years.
2009-2012 Scholarship from Universita di Salerno for excellence academic results.

REVIEWING

2018 Late Breaking Work review, CHI
2017 Journal review, Journal of Systems and Software
2017 Full paper review, TEI
2016, 2017 Full paper reviews, ICWE

TECHNICAL SKILLS

***Programming Languages*:** C, C++, C#, Java SQL, JSP, JDBC *Web Technologies:* PHP, JavaScript/jQuery (and NodeJS, Socket.IO), CSS ***Software\Tools\CMS*:** Suite Office, jDeveloper, Netbeans, Eclipse, Android Studio, Hadoop, Kettle, Mondrian, WordPress. ***Operating Systems*:** Windows (XP, Vista, 7, 10), Linux, Android.

PUBLICATIONS

[1] *Exploring Motion-Based and Mid-Air Gestures in Mobile Web Contexts by* Linda Di Geronimo, PhD Thesis, 2018, ETH Zürich.

[2] *Supporting Out of Office Software Development Using Personal Devices* by Maria Husmann, Alfonso Murolo, Nicolas Kick, Linda Di Geronimo, Moira C. Norrie (MobileHCI 2018)

[3] *MyoShare: Sharing Data Among Devices via Mid-Air Gestures* by Linda Di Geronimo, Marica Bertarini, Julia Badertscher, Maria Husmann, Moira C. Norrie (MobileHCI 2017)

[4] *Exploiting Mid-Air Gestures to Share Data Among Devices* by Linda Di Geronimo, Marica Bertarini, Julia Badertscher, Maria Husmann, Moira C. Norrie (MobileHCI 2017)

[5] *Continuous Tilting Interaction Techniques on Mobile Devices for Controlling Public Displays* by Linda Di Geronimo, Andrea Canonica, Maria Husmann and Moira C. Norrie (EICS 2017)

[6] *End-User Web Development Tool for Tilting Interactions* by Linda Di Geronimo, Sandro Kalbermatter and Moira C. Norrie (EICS 2017)

[7] *XD-Bike: A Cross-Device Repository of Mountain Biking Routes* By Maria Husmann, Linda Di Geronimo, Moira C. Norrie (ICWE 2016 Workshops)

[8] *Rapid Development of Web Applications that use Tilting Interactions in Single and Multi-Device Scenarios* By Linda Di Geronimo, Moira C. Norrie (AVI 2016)

[9] *CTAT: Tilt-and-Tap Across Devices* By Linda Di Geronimo, Maria Husmann, Abhimanyu Patel, Can Tuerk, Moira C. Norrie (ICWE 2016) - *Best Paper Award*

[10] *Surveying Personal Device Ecosystems with Cross-Device Applications in Mind* By Linda Di Geronimo, Maria Husmann, Moira C. Norrie (PerDis 2016)

[11] *Tilt-and-Tap: Framework to support Motion-Based Web Interaction Techniques* By Linda Di Geronimo, Ersan Aras, Moira C. Norrie (ICWE 2015)

[12] *Mixing and Mashing Website Themes* By Linda Di Geronimo, Alfonso Murolo, Michael Nebeling, Moira C. Norrie (ICWE 2015)

[13] *X-Themes: Supporting Design-by-Example* By Moira C. Norrie, Michael Nebeling, Linda Di Geronimo, Alfonso Murolo (ICWE 2014)

[14] *The Forgotten Many? A Survey of Modern Web Development Practices* By Moira C. Norrie, Linda Di Geronimo, Alfonso Murolo, Michael Nebeling (ICWE 2014)

[15] *A Parallel Genetic Algorithm Based on Hadoop MapReduce for the Automatic Generation of JUnit Test Suites* by Linda Di Geronimo, Filomena Ferrucci, Alfonso Murolo, Federica Sarro (ICST 2012)

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TEACHING INTERESTS

During my PhD at ETH Zurich, I had the chance to gain experience in teaching and evolve my passion for it. Together with my research duties, I had teaching responsibilities that included preparing and giving a number of lectures, managing and designing exercises, writing and correcting exams, and supervising bachelor and master theses.

In particular, since my first year as a PhD student, I have helped with the design, organisation and correction of exercises and written exams for the *Web Engineering* course with over a hundred students. The course was designed for the MSc in Computer Science, but was also popular with students from other departments and some at the bachelor level. The mix of background knowledge and levels of experience made it quite challenging to design appropriate exercises, but we developed an approach based on the workflow of actual practitioners that worked well. In the following years, I had the role of chief teaching assistant in this course, which involved managing the work of the other PhD students assisting on the course.

I also participated in the organisation of other lectures for bachelor and master students including the MSc course *Mobile and Personal Information Systems* and the BSc course on *Human Computer Interaction*. In both cases, I became the chief teaching assistant and gave a number of lectures on various topics as well as designing exercises and also preparing and grading examinations along with the Professor. Furthermore, I was a teaching assistant for the *Informatik* class for students in mathematics and physics. In this course, I had to give presentations in the weekly exercise classes to teach the basics of computer programming and object-oriented concepts.

During the last five years, I have supervised groups of students in the *Information Systems Lab*. In this course, teams of three or four students are required to develop a research project and present it to other students and members of staff. Moreover, I also supervised students in the *Computer-Supported Cooperative Work* seminar where they are required to present research papers.

At ETH Zurich, I had the opportunity to experiment with direct interaction between teaching and research. During classes, students had the possibility to get to know me and understand my research interests. They were often interested and decided to pursue their bachelor or master thesis under my supervision. This gave me the chance to work with them on more than 15 different projects and develop close working relationships with them during their theses. This intersection between research and teaching allowed me to improve my skills on both sides and, I believe, it made me a better teaching assistant and researcher.

RESEARCH INTERESTS

I have had the opportunity to work on a variety of research projects since my bachelor studies. In fact, for my bachelor thesis, I contributed to a study that was later published at the International Conference of Software Testing [1]. My contribution was to develop software that automatically generated white box test cases via a genetic algorithm. These were then executed on parallel machines via Hadoop Map-reduce. This first project gave me the motivation to continue my career as a researcher with a particular interest in Software Engineering topics. For this reason, I decided on Software Engineering as the specialisation for my masters degree. My studies concluded by doing a masters thesis at ETH Zurich under the ERASMUS scheme. For my masters thesis, I focused on Web Engineering topics and developed a tool, called X-Themes, for the generation of themes for WordPress. X-Themes allowed users to mix and mash layout and functionality of other themes to create their own website. Given the successful outcome of the project, my supervisor invited me to continue our working relationship by doing a PhD under her supervision, while employed as a teaching and research assistant in her group. The X-Themes project and a related survey on web development practices were later published at the International Conference of Web Engineering [10,11,12].

For my PhD, I focused on topics that lie in the overlap between the Web Engineering and Human Computer Interaction fields. While researchers have studied many alternative interaction techniques on native mobile applications, web applications still rely mainly on keyboard and mouse interaction on desktop devices and touch on mobile devices. For this reason, I decided to bridge this gap by investigating support for experimentation with motion and mid-air interactions in web applications.

To start research in the area, I developed Tilt-and-Tap [9], a JavaScript framework that supports motion interactions on the web. Tilt-and-Tap solves interoperability problems across browsers, helping developers avoid implementation details of motion interactions. Used in combination with touch gestures, it allowed us to build a number of web applications that take advantage of the motion sensors on mobile devices [6].

Furthermore, we built a WordPress plugin [4] to demonstrate how end-users can be provided with support for adding motion interactions to their websites. WP-TAT is an extension for WordPress that offers a visual interface to add tilting gestures to common actions in websites. For example, a tilt to the right or to the left of the phone could redirect the user to the next or previous post. Similarly, the user could do a Google search for the text currently selected on a page by tilting the device down. All these tools and experiments formed the basis for drawing up a list of guidelines for when and how it is best to use these interactions on the web [4].

During my PhD, I helped carry out a survey on the number of different devices that people own and have with them in different situations [8]. The results were used to motivate our interests in cross-device applications where an application runs across more than one device. In my work, I extended Tilt-and-Tap to work across devices and developed the CTAT framework for the rapid development of motion gestures in cross-device web applications [3,7]. A publication on the work was given the best paper award at the International Conference on Web Engineering in 2016. Additionally, I developed the MyoShare system [1,2] to investigate support for, and the use of, mid-air gestures for sharing web data across multiple devices. In October 2018, I successfully defended my PhD thesis at ETH.

After my PhD defense I joined the Zurich Empirical Software Engineering Team (ZEST) at the University of Zurich. Given my web and software engineering skills as well as my interests in HCI topics, at ZEST I am working on the human aspects of software engineering. Furthermore, I am also already exploring in detail the topic of UI Dark Patterns (user interfaces to trick users in doing things they do not want to). Thanks to the empirical expertise of my group, I am supported and helped by my Professor, Alberto Bacchelli, and the rest of the team.

Overall, my research interests touch on Software Engineering, Web Engineering and HCI, as well as machine learning for the recognition of gestures. This I believe gives a modern perspective to Software Engineering that caters for the engineering of a wide range of interactive systems