

Margherita Lazzarini

Curriculum Vitae

Work experience

Vocational

2014–Present **Software developer**, NOEMALIFE SPA, Bologna.

Contribute to a Java Tomcat based application to handle anatomic pathology workflow.

Duties:

- Working on systems maintenance patches and bug fixing
- Providing enhancement to existing and new system modules
- Developing and testing new modules
- Support customers and staff in issue resolution.

Technologies:

- Programming languages: Java, PL/SQL
- Environment: Netbeans, PL/SQL Developer
- o Tools: Apache Tomcat Server, Java Web Start, Hibernate framework, Swing API
- Operating systems: Windows 7/8/10
- Agile developement

2014 Internship as a software developer, NOEMALIFE SPA, Bologna.

Internship to write my master thesis: Design and developing of a REST application preventing chronical diseases.

Chronic diseases such as neuropathies, obesity, heart disease and diabetes are asymptomatic in the early stages of their development. It has been developed Viewpoint, a web application able to predict chronic kidney disease, starting from laboratory analysis results, in order to apply on patients preventive action. The application makes use of REST resources and EJB architecture, and in my thesis particular focus was given to the analytical section, able to view aggregate data and perform what-if analysis on the number of patients and the resources dispensed by the italian national health service.

Miscellaneous

2013 - 2014 Didactical tutor, University of Bologna, Bologna.

Didactical support both for students and teachers.

I gave support to CS department organizing didactical events and statistical surveys. I gave advice and initial guidance to incoming students.

2012 - 2013 Front & backend web developer, R4D1C4L - https://www.facebook.com/Livebo.it, Bologna.

I developed CMS applications to handle websites updates. I used Smarty PHP framework, MySQL database and $\mbox{HTML/CSS}$.

Education

2012–2014 Masters of Computer Science, University of Bologna, Bologna.

Grade: 110 cum laude/110.

Thesis: Design and developing of a REST application preventing chronical diseases. See working experience for more info

2008–2012 Bachelor of Computer Science, University of Bologna, Bologna.

Grade: 99/110.

Thesis: Elliptic curves cryptography and Cryptokit library integration

Study about elliptic curves cryptographya description, and implementation of OCaml ECC functions for *Cryptokit*, a library of cryptographic primitives.

Technical skills

Programming languages

Advanced Java, C, MySQL, PL/SQL, HTML5+CSS3, Javascript

Intermediate PHP, LATEX

Basic Bash, OCaml

Tools and frameworks

Application Apache Tomcat, JBoss

servers

Frameworks Hibernate, Swing, Smarty, AngularJS

Standards HL7

IDF

NetBeans, Eclipse, Android Studio

Operating systems

Ubuntu, Microsoft Windows 7/8/10, Android, Debian

Projects

2014 JBoss app using Opennebula tool

Configuration of a cluster of virtual machines using Opennebula and deployment of a JBoss simple stateful app to test fault tolerance.

2013 **ICD9-CM classificator**

An automatic ICD-9-CM classificator for textual medical reports. See here for full description

2012 Proxy miniHttp with prefetching

A simple HTTP proxy working on a subset of HTML. Developed in C with pthread to serve multiple HTTP requests. See https://code.google.com/archive/p/prefetching/

Languages

English Intermediate

Italian Mothertongue

Spanish Basic

French Basic

Interests

- e-Health solutions and medicine: I am very passioned about developing digital solutions for medicine, I feel this is the best way to help people with my skills.
- **Human computer interaction and web design**: I have always been fascinated by design. Since I started university, I have constantly been developing websites and CMS, both for fun and for work. One of my favourite courses at university was *Human computer interaction* and one of my favourite books is *The Design of Everyday Things* by Donald Norman.
- Android operating system and apps: in the last 3 years, I studied about Android operating system and apps architecture in my free time. I start developing some small apps just for fun. In the future, I would not mind to develop mobile applications for work.
- Running, swimming, yoga