Simone Mosciatti

Curriculum

Italy
✉ *simone@mweb.biz*
🖥 *siscia.github.io*

Education

2013–Present   **Bachelor in Engineering of Computer Systems**, *Politecnico di Milano*, Milan, Italy.

Currently, for my thesis working on **Estimating time to completion of MapReduce jobs**. In this work. This works leverages MARC, a framework for the estimation of resource consumption, as a mean to provide accurate models for the completion time of MapReduce jobs, executed on a Hadoop cluster. I take into consideration the percentage of job completion as a resource that can be consumed; a piece-wise linear model is then generated subdividing the job execution into different phases, according to configuration parameters and runtime metrics. The proposed model allows the user to have both a better estimate of the time required by an already submitted job to complete and the ability to perform more accurate resource reservations, towards a more efficient scheduling and a higher cluster utilization.

2014–2015   **Bachelor in Engineering of Computer Systems**, *Tongji University*, Shanghai.

Within the Politong Double Degree Program

Experience

2013–2014   **Software Engineer, Freelance**, *workinvoice.it*, Milan.

The platform is a marketplace to buy and sell invoices.
I re-engineered the backend, written in Clojure, to improve code maintainability and system scalability.
I also worked on the frontend, which uses standard HTML5, CSS and Javascript technologies, to enhance the user-experience and the interface usability.
Overall, the re-engineering process focused on:

- The authentication system for different kinds of users
- Designing and implementing the backend APIs
- Re-designing the SQL schema
- Frontend improvements

2012–Present   **OpenSource Author**.

I am the author of the following projects:

- https://github.com/siscia/effe
  Open Source Software to provide the same advantages of AWS Lambda. Introducing Effe

- https://github.com/siscia/effe-tool
  Makes it easy and simple to work with effe

- **Introduction to Highly Scalable, Fault Tolerant, Distributed System**
  Tiny introduction to the ideas behind Highly Scalable, Fault Tolerant, Distributed system.

- https://github.com/siscia/numerino
  Priority Queue is Elixir/Erlang/OTP

- https://github.com/siscia/postgres-type
  Makes possible the use the JSON datatype in Postgres database with clojure.

2012–Present	**OpenSource Contribution**. Contribution to the following libraries

- https://github.com/clj-time/clj-time
  The standard way to handle time in clojure

- https://github.com/budu/lobos
  SQL schema manipulation and migration library for clojure

  - I made possible to use lobos with the last version of the java driver.

Languages

Italian	**Mother tongue**
English	**Proficient** *I was an AFS exchange student in 2011-2012 at Carthage, MO, USA high school.*
Chinese	**Basic**

Programming Skills

Proficient	**Clojure**, *compojure, monger, korma, core.async*.
Proficient	**Python**, *Flask, Django*.
Proficient	**Elixir**, *Erlang/OTP, BEAM VM*.
Very Good	**SQL**, *PostgreSQL, SQLite3*.
Very Good	**NoSQL**, *MongoDB*.
Very Good	**Java**.
Very Good	**Go(lang)**.
Good	**C/C++**.
Good	**JavaScript**, *mongoose, node.js*.
Basic	**Haskel**.
Basic	**Rust**.