

## Nicolò Martini

Senior PHP Developer - London

[nicolo.martini.io](http://nicolo.martini.io)

### PROFILE

An experienced software developer, mainly in PHP, with a very good knowledge of state-of-the-art PHP and Web technologies., and with a good knowledge of many mainstream languages.

I am a functional language supporter, I love Scala, and I always try to bring concepts like immutability and referential transparency in the imperative paradigm.

I love abstraction, always trying to write elegant and beautiful code that meets customer expectations. I want to understand problems deeply.

I like theory, not only practice. I have a maths background, and a strong interest in type systems and program languages design.

### SKILLS AND EXPERTISE

- 10+ years experience in PHP and Web development. PHP 5.4-6. Symfony, Silex, Laravel, Phalcon, Silverstripe, Composer, PSR-0...PSR-4, PSR-7
- Strong understanding of strengths and weaknesses of OOP, strong OOP architectural skills.
- Best practices, design patterns, code refactoring,
- Maths, Probability Theory, Type Theory, Lambda Calculus, Machine Learning, Data Mining
- TDD, BDD, Continuous integration
- Open to work with non PHP languages, with a preference for statically typed ones (Scala, Java, Haskell)

### EDUCATION

Master Degree in Mathematics (Magna cum Laude)

Bachelor Degree in Mathematics (Magna cum Laude)

### EXPERIENCE

#### Senior PHP Developer: DXI Ltd - 8x8 Inc

*March 2014 - Current*

Developed high-scalable PHP applications in different frameworks (Laravel, Phalcon, Symfony components) in a highly distributed, traffic intensive environment (millions phone calls per day made by the software).

*Key Experiences:*

- Defined a Context Free Language for customer data retrieval
- Wrote a cross-service SQL profiler tool in a functional style, highly optimized existing APIs
- Componentized projects in many, highly-reusable, composer libraries
- Implemented OAuth2 authentication system for the platform
- Designed level 3 RESTful APIs with custom mime-types and hypermedia controlsHalved memory and CPU footprint migrating the main application from Laravel to Phalcon
- Fixed years long standing and critical security bugs in the first couple of months
- Team leading, mentoring/helping junior developers.

Nicolò Martini

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## PHP Developer: Comperio s.r.l

August 2011 - March 2014

Lead developer of DNG, an OPAC software that serves almost a thousand of libraries. It is the second most used OPAC software in Italy, and it is by far the most technologically advanced within its competitors. DNG is written in PHP and it is built on top of the Silverstripe CMS.

Key Experiences:

- solved the problem of heterogeneous data sources with a data layer to uniformly access library data from different sources (MySQL, SOAP, SOLR)
- definition of a context free language for OPAC queries
- Turbomarc (a dialect of UNIMARC) transformation layer for extracting data from SOLR documents
- implemented a really powerful shelf and saved-searches system for user and librarians
- improved dramatically the reactivity of the application with a semantically event-driven client-side code, modularized through RequireJS
- used GruntJS for the build process (composer, css/js minification, less compilation, etc.)

## Fullstack Web Developer: ElectroYou.it

January 2005 - August 2011

ElectroYou is the italian community of electronics lovers and professionals, and it is one of the top websites in its field. It is written in PHP.

Key Experiences:

- Dramatically improved user engagement with gamification (reputation, achievements)
- Implemented an activity stream system and a powerful, multi-channel, notification system
- Integrated several open source projects (PhpBB, Mediawiki, Symfony components)
- Implemented a driver that transforms FidoCadJ code (a Cad for electronic schematics) embedded in forum posts to PNG.

## OPEN SOURCE

- StringTemplate - A string interpolation library. +55 000 installs in Packagist, used by box.com
- Tree - A Tree data structure in PHP, +20 000 installs in Packagist, +100 stars
- DGIM - The Datar-Gionis-Indyk-Motwani algorithm in PHP
- WeightedRandomDistribution - An implementation in Scala of the ALIAS method for weighted random distributions
- DomainSpecificQuery - Define domain-specific queries and compile them into other formats
- Functionals - Higher-order functions for PHP
- UniversalMatcher - An O(1) rules based matcher engine for PHP
- +300 stars on GitHub, +2000 reputation on StackOverflow

## CERTIFICATIONS

- Automata (Coursera)
- Algorithms (Coursera)
- Machine Learning (Coursera)
- Mining Massive Datasets (Coursera)
- Principles of Reactive Programming (Coursera)

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