Gabriel Candal
Curriculum Vitae

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▬ Experience

Working

Dec 2016-* **Software Engineer**, *Feedzai*.

Working on providing machine learning through a distributed system under strict performance requirements for some of the world's largest banks, payment processors and merchants. Among other things, I have:
- Built an highly available PCI DSS-compliant system to store secrets
- Fixed bugs in a compiler-based Complex Event Processing product
- Profiled JVM applications, tuning GC parameters and experimenting with different algorithms
- Coordinated a 3-person team that implemented a proof-of-concept for a Fortune 500 company
- Coordinated a 5-person team to deliver a new product feature
- Helped filtering candidates and onboard new colleagues

Technologies: Java 8 (+ Guava, Guice, JUnit, JMockit, ...), Scala, Cassandra, Zookeeper, RabbitMQ, Spark.

2015-2016 **Software Engineer**, *PLATFORME International*.

Joined as the 3rd developer a team that built a best of breed web 3D customiser, integrating it with farfetch.com, as well as its own e-commerce engine.
- Contributed to all areas of our products, from the core customiser to the website's front and back-ends (including the e-commerce engine)
- Built an analytics dashboard
- Improved a platform for running and monitoring parallel image transformation tasks (with a 2-8x speedup when compared to its predecessor)

Besides doing software development, I have also gathered requirements from internal and external stakeholders and helped schedule and coordinate tasks within the technical team.
Technologies: MongoDB, Python, HTML/CSS and Javascript (jQuery).

2014-2015 **Co-Founder & Lead Developer**, *Trigonum*.

Responsible for the software development in a company focused on products for health professionals. Used HTML/CSS, PHP, jQuery and PostgreSQL.

Jul-Aug 2013 **Software Developer Intern**, *Critical Manufacturing*.

Together with a colleague developed an tool to assist developers in testing. Compared to the one previously used it ran 5x faster, besides providing information as structured XML and producing 3x smaller files. Used C++ and Solaris.

Teaching Assistant

Feb-May 2015 **Programming + Algorithm Design and Analysis**, *Faculty of Engineering of the University of Porto*, FEUP.

Sep-Nov 2014 **ProjetoFEUP**, *Faculty of Engineering of the University of Porto*, FEUP.

▬ Skills

Basic Haskell

Pet-projects **General purpose** (Ruby), **web** (React, Redux, NodeJS, AngularJS, Ruby on Rails, PHP), **mobile** (Android)

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Professionally	**General purpose** (Java, Python, Scala, C/C++), **databases** (Cassandra, PostgreSQL, MongoDB), **other** (Zookeeper, Spark, RabbitMQ, Unix, git, Docker, algorithms, concurrency/multiprocessing, distributed systems, agile), **web** (Javascript, jQuery, HTML/CSS)

Education

2011-2016	**Masters in Informatics and Computing Engineering**, *Faculty of Engineering of the University of Porto*, FEUP, 17/20. Thesis on *Exploring Visual Programming Concepts for Probabilistic Programming*.

Projects

Actor Binary Tree	Made a distributed binary tree implementation based on Akka's actors as part of Martin Odersky's MOOC on reactive programming. **Scala, Akka**
GlinttSupport	In collaboration with Glintt, built a call-center-like website which aggregated Facebook and Twitter feeds of a given company, as well as a custom 1-on-1 chat, and presented them as unresolved issues for the operator to solve. **AngularJS, node.js**
Interpreters	As a part of UW's MOOC on programming languages, built two interpreters: one for geometric expressions and the other for a MUPL (Made Up Programming Language, which was a subset of Racket which included higher-order functions). **StandardML, Racket**
Distributed Backup	Distributed and decentralized application that provides file backup capabilities, making use of UDP's unreliable message-passing. **Java**
Regex compiler	A compiler from PCRE regex to a C++/Java program which matches that regex to user input, based on a validation via DFA. **Java**
NeuralNet	An OO implementation of a feed forward backpropagation neural network. **Java**
Asteroids	A game which runs on top of Minix, which involved programming every devices' interface (timer, keyboard, mouse, VESA graphics). **C/C++**

Extra Courses and Certificates

Sep 2017	**Certified ScrumMaster**, *Scrum Alliance*.
Jun 2015	**Principles of Reactive Programming**, *Coursera*, EPFL.
Aug 2015	**CS190.1x: Scalable Machine Learning**, *edX*, BerkeleyX.
Feb 2013	**CS169.1x Software as a Service I**, *edX*, BerkeleyX.
Feb 2015	**CS169.2x Software as a Service II**, *edX*, BerkeleyX.
Dec 2014	**Programming Languages**, *Coursera*, University of Washington.
Mar 2015	**Algorithms: Design and Analysis, Part 1**, *Coursera*, Stanford.
May 2015	**Algorithms: Design and Analysis, Part 2**, *Coursera*, Stanford.
Nov 2013	**Functional Programming Principles in Scala**, *Coursera*, EPFL.
2013-*	**16 other MOOCs**, *Coursera, edX and Udacity*.

Other

Open-source	moviepy, budy-api, blockly-generator-csharp
Volunteer	DotA-League's Junior Admin, Codecademy, INForum 2014, Talk A Bit's 4th edition
Co-author	Next Commit
Sports	Goju-ryu karaté, football
Speaker	Pixels Camp ("Distributed Systems: zero to ?")