

Quick learner with diverse experience of technologies and programming languages. Eager for problem solving from product design, to systems architecture, application development, and lifecycle management. Strong background in mathematics. Always looking forward to collaborate with good ideas and people.

## SKILLS

<i>strong</i>	Scala, Java, C/C++
<i>able to use</i>	C#, Android, JavaScript, HTML, CSS, SQL, Swift, Kotlin, Python, PHP, iOS, Objective-C, Go
<i>tools</i>	Git, Jenkins, Splunk, Datadog, Grafana, Firebase
<i>concepts</i>	Data Structures, Algorithms, Databases, Event-Driven, Functional

## EXPERIENCE

**Mobile Puzzle Game** Creator Sep 2018 - Current

Design of original game concept and seamless player experience. Monetization through advertising and in-app purchases. Implementation for Android and iOS in C++ using the Cocos2d-X engine. Integration with Firebase for analytics, crash reporting, and remote configuration. Available soon.

**HomeAway** Software Engineer Feb 2017 - Jun 2018

Backend applications in Scala that deliver marketing feeds to Google, Facebook and Criteo supported by Kafka, Cassandra, S3 and Spark. Continuous integration with Jenkins and continuous deployment with internal tool. Application monitoring and alerting with Datadog and Splunk.

**Net-A-Porter Group** Associate Developer Nov 2015 - Feb 2017

Development, maintenance and support of REST services and payment APIs using Spring and Hibernate. Design of a Elasticsearch index. Pipeline configuration using Puppet. Prototype of a functional approach to API development with Java 8. Prototype of model-driven GraphQL implementation.

**Critical Manufacturing** Summer Internship Jul - Sep 2014

WPF application in C# that compares and exports data between a staging environment and production. It used flexible and efficient Data Structures to accommodate a configurable data model, configurable behavior (through Runtime Reflection), and large amounts of data.

## PROJECTS

**Metamorphic Framework** [github.com/frroliveira/metamorphic](https://github.com/frroliveira/metamorphic)

Mar - Jun 2015

Model-driven REST framework in Scala developed during master's dissertation. It uses an internal DSL for modeling applications that are generated with Macros. Performs better, in most cases, than common model-driven REST frameworks (LoopBack, Sails, Django REST), using Spray and Slick.

### Others

2013 - 2017

- Web application in Python for GCP. Finalist of the 'Google Cloud Developer Challenge'. [gcdc2013-studies.appspot.com](https://gcdc2013-studies.appspot.com)
- Web development in PHP adopting responsive web design. [vistuk.pt](http://vistuk.pt) and [spiracol.com](http://spiracol.com)
- Contribution to Scala open source project. [github.com/typelevel/cats](https://github.com/typelevel/cats)
- SQLite parser for Java using JavaCC. [github.com/frroliveira/sqlipa](https://github.com/frroliveira/sqlipa)

### Academic

2013 - 2015

- Web application for the elderly in .NET and AngularJS. Integrates with: Google Sign In, Calendar, and Contacts.
- 2 native Android applications that implement: local database, data synchronization, QR codes, and NFC.
- 3 cross-platform games in C++ developed with Cocos2d-X: 1 using AdMob, and 2 using a physics engine.

## COURSES

- Big Data Analysis with Scala and Spark [Coursera](https://www.coursera.org/course/bigdata) 2018
- Functional Programming Design in Scala [Coursera](https://www.coursera.org/course/fp) 2017
- Functional Programming Principles in Scala [Coursera](https://www.coursera.org/course/fp) 2016

## EDUCATION

**Master in Informatics and Computing Engineering**

2010 - 2015

Faculty of Engineering of the University of Porto, Portugal

*thesis* Exploring the Scala Macro System for Compile Time Model-Based Generation of Statically Type-Safe REST Services

## ACHIEVEMENTS

### INFORMATICS

- Finalist of the 'Google Cloud Developer Challenge', Google - Online, 2013.
- 2nd in 'Agile Marathon for E-Commerce' (with team Agile Runners), Sonae / CiPS / FEUP, 2013.
- 9th in 'Ninja Challenge', AuditMark - Online, 2013.

### MATH

- 'New Talents in Mathematics' fellowship, Calouste Gulbenkian Foundation, 2011/2012.
- Winner at the 'MAT12' competition, University of Aveiro, 2008 & 2009.
- Bronze Medal at the 25th Portuguese Mathematical Olympiad, Lisbon, 2007.

## OTHER

- Merit fellowship, University of Porto, 2013 & 2015. Regarding 2010/2011 & 2011/2012.
- 'Prémio Incentivo' award, University of Porto, 2012. Regarding 2010/2011.
- 'Prémio de Valor' award, Oliveira Júnior Basic and Secondary School, 2010.
- 4th at the Portuguese 'F1 in Schools' Final, Porto, 2010.

updated on April 2, 2019

short version