# **Tito Miguel Costa**

## Senior Backend Engineer

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## Summary

Several years of experience designing, building and maintaining web solutions. Certified PHP5 Zend Engineer. Specialised in PHP/Symfony. Growing interest in Python and machine learning. Technical reviewer for Packt Publishing.

I'm always looking for new ways to improve the technical solutions I design. Knowing that I won't get it right at first, I face failure as a mean to learn and improve. My efforts go into continuously refactor and test, considering those the two key elements for solid code. Programming languages and services are just tools for delivering a great product, I rather focus on patterns and architecture, making sure they are robust, easy to extend and maintain.

#### Interests:

Create high performance and scalable applications; Agile methodologies; Clean code; Testing;

#### Goals:

Lead an open source project.

#### Areas of expertise:

PHP (Silex and Symfony2), Python (Flask, Django and Wagtail); Database design and administration (MySQL and SQLite); Server administration (AWS);

# Experience

#### **Senior Backend Engineer at Pixel Fusion**

#### February 2017 - Present

At Pixel Fusion, as part of my role as senior backend engineer, I have been working directly with clients in the process of understanding the problems they face, gather and clarify their requirements, design and document solutions and deliver them.

To accomplish robust solutions for the problems in hand, a multiple of technologies and services have been put into place. The goal is to deliver the best possible solution using the right tools for the job and keep the code as clean as possible.

Python is the major programming language due to its simplicity and flexibility without sacrificing its power. Go has also been used whenever concurrency and performance is a must.

To avoid reinventing the wheel, whenever there is a service in the cloud that provides a reliable solution, instead of coding from scratch, a third party service is considered and adopted if it meets all the requirements. AWS is an ideal candidate, offering a vast range of services, making it easier to maintain and scale, reducing the development costs and speeding up the delivery time. To name a few of the services provided by AWS that we integrated in our solutions: EC2, ECS, Lambda, RDS, Athena, S3, CloudWatch, SQS, SNS and API Gateway.

As part of the culture, we tend to adopt open source solutions as much as possible. For continuous integration and delivery, we favour Jenkins. DeployBot and Bitbucket Pipelines are used, mainly for legacy projects. For provisioning, a shift is in place, from Vagrant with Ansible to Docker. To code the infrastructure, we use Terraform.

#### Senior Symfony Developer at Lendable

November 2014 - January 2017 (2 years 3 months)

Lendable is an online lending platform. It makes borrowing as hassle-free as possible. In a matter of a few clicks it quotes their customers. Unlike banks, who require paperwork and run expensive branch networks.

As a senior developer I took part in several taks:

- Add unit and functional tests using PHPUnit and Behat that covered more than 75% of the business logic;
- Integrate the platform with several external services through their APIs (RESTful and SOAP), a few examples are: Mandrill, Pusher, Twilio, Stripe, CallCredit, LogicalGlue;
- Extract main platform functionalities into microservices implemented in Silex and open source libraries;
- Design and build two versions of the API for partners and investors (v1 adopted HATEAOS and v2 JSON-LD and Hydra);
- Refactor existing code to be more extensible and modular by using established design patterns and following the SOLID principles;
- Built and maintain the virtual working environment for the main project and microservices using vagrant, VirtualBox, Berkshelf and chef solo;
- Manage releases using Jenkins for continuous integration and AWS services (RDS, EC2, SES, SQS, CloudFront)
- Make sure the latest versions of the technology adopted were in use (upgraded main platform powered by Symfony from version 2.4 till 3.1 and microservices in Silex from 1.2 till 2.0).

#### **Backend Team Leader at Sportlobster**

February 2014 - November 2014 (10 months)

Sportlobster is a sports social network.

During my time at the company I enrolled in development and lead tasks:

- Manage the development process of the PHP backend team (GitHub, Jira);
- Ensure code quality and adoption of the best practises (TDD, BDD, Behat, PHPUnit, Silex, Symfony2);
- Creation of a working environment suitable for the requirements of the project (Vagrant, Berkshelf, Chef, Ruby).

### Symfony2 Developer at Virgin Media

February 2013 - February 2014 (1 year 1 month)

- Maintenance and improvement of the portal Virgin Media TV Anywhere http://anywhere.virginmedia.com
- build with Symfony2
- RESTful web service development using Guzzle and Symfony2 frameworks.
- Development of PHP libraries and corresponding Symfony2 bundles that solve common business needs
- Integration of Jasmine and Grunt as part of the frontend development process

#### Symfony Webdeveloper at Adclick

April 2011 - March 2012 (1 year)

Design and build web applications using the PHP framework symfony.

Lead developer of the portals http://www.baratix.com.br/ and http://www.educalia.com.br/

#### Freelance web developer at Tito Miguel Costa

November 2010 - September 2011 (11 months)

Web designer and web developer specialized in open source technologies and with experience in network and system administration in a LAMP environment.

Zend PHP5 certified engineer. Experienced symfony developer.

#### Web developer at morfose

October 2007 - October 2010 (3 years 1 month)

Develop and maintain of web sites implemented in PHP5 with the symfony 1 framework.

#### Web developer and system administrator at Universidade dos Açores

September 2002 - September 2007 (5 years 1 month)

Linux server administrator and web developer at the University of Azores. Responsible for the integration and remake of their main website, http://www.uac.pt/, and support for their e-learning platform http://moodle.uac.pt/

#### Education

#### Faculdade de Engenharia da Universidade do Porto

Master, Informatics, Multimedia, 2010 - 2012

**Activities and Societies:** Workgroups discussion, Debate team, Project planification, System analysis **Universidade dos Açores** 

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Contact Tito Miguel on LinkedIn