# Raffaele Bua

Portfolio

# Satellite Image Processing Platform

October 2016 to Present

## **Description**

Open Source plugin based platform able to download and process EO satellite data. It is written in Python and C++. Downloads and Processes are multithreaded and schedulable. The Platform is configurable and the *processor* is extendible via C++ plugins.

# Responsibilities

Project Manager, Software Architect, Software Developer.

# **Technologies**

Python 3.4, C++, GDAL library, <u>SQLAlchemy</u> ORM, Flask, Postgresql, Supervisord, Valgrind, Nginx, Docker, Docker Compose.

#### Link

Official documentation: <a href="https://goo.gl/tNBcY0">https://goo.gl/tNBcY0</a>

Source code: https://goo.gl/snTyBk

# Satellite Data Hub - Application

September 2015 to Present

### **Description**

SPA web application developed using modern web technologies, modular, dynamic and extensible. Exploiting web components.

# Responsibilities

Software Architect, Lead programmer in team of three people. Customer relations.

### **Technologies**

MVC, Web Components, ECMAScript 6, Javascript, Polymer 1.0, Java, Spring, RESTful Design patterns.

#### Link

source code: <a href="https://goo.gl/3v4sBv">https://goo.gl/3v4sBv</a>

architecture documentation: <a href="https://goo.gl/FFWE2Q">https://goo.gl/FFWE2Q</a>

# Data Hub System add-on for Sentinel-2 satellite products ingestion

May 2015 to Present

# **Description**

Addon of Data Hub System to ingest Sentinel-2 satellite products, to map metadata of products with Solr indexes, to provide full text search.

## Responsibilities

Software Developer.

#### **Technologies**

Solr, OWL, java, Xquery.

#### Link

https://goo.gl/P4Tqt9

# Sardegna Clima Backend Platform

June 2014 to Present

# **Description**

Sardegna-Clima Onlus Backend Platform to store the history of measures from Sardinian weather stations.

## Responsibilities

Software Architect and Software developer.

# **Technologies**

PHP 5, Slim Framework, Doctrine (ORM), MYSQL.

#### Link

https://goo.gl/3zHcNV

# Sardegna Clima Android App

June 2014 to Present

# Description

Sardinia weather Android application. *Sardegna Clima Pro* provides the measured weather parameters from more than 70 stations installed around Sardinia with real-time updates.

## Responsibilities

Software Architect, Team leader, Software developer.

# **Technologies**

Android, Apache Cordova, AngularJS, Bootstrap.

#### Link

app: <a href="https://goo.gl/SAKgQu">https://goo.gl/SAKgQu</a> code: <a href="https://goo.gl/ym9TmE">https://goo.gl/ym9TmE</a>

# Book Explorer (Open source iOS App)

April 2014 to Present

# **Description**

Book Explorer is an open source iOS App to discover books and authors, using google freebase api.

# Responsibilities

Software Architect, Software Developer.

## **Technologies**

XCode - Objective-C - Google Freebase APIs - Git - Github.

## Link

http://goo.gl/FJjIRE

# eMailChef

June 2013 - November 2014

# **Description**

Email Marketing Service Platform (like MailChimp).

# Responsibilities

Software Developer.

# **Technologies**

PHP 5 Slim Framework, Mysql, AngularJS, Bootstrap.

#### Link

code: http://emailchef.com/

# Turbo smtp Dashboard

March 2013 to May 2013

# Description

SMTP service admin panel.

# Responsibilities

Software Developer.

# **Technologies**

RESTful, SPA, MySQL, nodejs, expressjs.

#### Link

http://goo.gl/ST1UMC

# Gente Veneta Backend web services

June 2011 to August 2011

# **Description**

Backend web services for *Gente Veneta* mobile application, to manage, purchase, download *Gente Veneta* volumes.

# Responsibilities

Software Developer.

# **Technologies**

Java, MySQL.

### Link

http://goo.gl/BPNohZ

# Navionics Rating and review system

April 2011 to July 2011

# **Description**

Rating and review system for the Navionics Navigation app.

# Responsibilities

Software Developer.

# **Technologies**

Objective-C, C++.

#### Link

http://goo.gl/d7Qel2

# Navionics Tide prediction system

March 2011 to April 2011

# **Description**

Tide prediction feature for iOS Navionics Mobile App.

# Responsibilities

Software Developer.

# **Technologies**

Objective-C, C/C++.

## Link

http://goo.gl/d7Qel2

# Ledout

November 2012

# **Description**

E-Commerce website to sell led lights.

# Responsibilities

Software Developer.

# **Technologies**

PHP 5, Synfony.