Willian Galvani

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EDUCATION

UFSC

Computers Science Bachelor's
Incomplete: 2008-2010

Control and Automation Engineering
2011 - 2017

SEAMK

(Automation Engineering Exchange Student)
2014.2-2015.2

SKILLS

Programming

Python	●●●●●●●○○○
C	●●●●●●○○○○
C++	●●●●●○○○○○
C#	●●●●●○○○○○
LaTeX	●●●●●○○○○○
MATLAB	●●●●●○○○○○
HTML	●●●●●●○○○○
JavaScript	●●●●●●○○○○
CSS	●●●●○○○○○○
DRF	●●●○○○○○○○

Frameworks/Libraries

Arduino	●●●●●●●○○○
Django	●●●●●●●○○○
Ionic	●●●●●○○○○○
OpenCV	●●●●●○○○○○
Qt	●●●●○○○○○○

Others

GIT	●●●●●●●○○○
Inventor	●●●●●●○○○○
Linux	●●●●●●○○○○
Networking	●●●●●●○○○○
SolidWorks	●●●●●○○○○○
Proteus	●●●●●○○○○○
V-REP	●●●●●○○○○○
Eagle	●●●●○○○○○○

1-Shallow knowledge.
2-Able to perform minor changes.
3,4-Able to develop small projects.
5,6-Comfortable with the tool, able to fulfill more complex tasks and projects.
7,8-Understands the inner workings of the tool.
9,10-Comprehensive knowledge regarding the tool's implementation, inner workings, and nuances, able to recreate it given enough time.

PROFESSIONAL EXPERIENCE

UFSC / FEESC / PETROBRAS

Derivative Free Optimization for Automatic Tuning of an Oil Well Simulator.
August 2016 – March 2017

- Use of tuners for optimization of black box functions.
- Implementation of derivative free optimization methods in Python.
- Implementation of a software interface between tuners and Petrobras in-house multi-phasic flow simulation software.

ROBOTA

Mobile robotics competition team.
March 2016 – now

- Development of autonomous robots for competitions.
- Development of open-source solutions and tools for mobile robotics.

INSTITUTO SESI DE INOVAÇÃO

Embedded softwares development.
August 2015 – February 2016

- Embedded Python development on Raspberry PI.
- Embedded C programming on freedom K64f platform.

UFSC - LABORATÓRIO DE CONTROLE DE AUTOMAÇÃO

ProVant- Project of an unmanned aerial vehicle.
July 2012 – June 2014

- Pilot e Developer at ProVant, the project of an autonomous Tilt-Rotor aircraft.
- Design and implementation of communication protocol between UAV and ground station.
- Assistance on electrical, electronic, and mechanical projects.
- Design and implementation of a ground station software using Python and Qt.

UFSC - DEPARTAMENT OF AUTOMATION AND SYSTEMS

Website development and maintenance
August 2011 – December 2013

- Development and maintenance of both the Department of Automation and Systems and Control and Automation Engineering course websites, using Python with the Django framework.

Development of the Access Control System
November 2013 – June 2014

- Development and maintenance of a access control management system interface internal for the department and it's laboratories, interfacing with the built-in software on the controllers, built using Python and the Django framework.

INTEREST AREAS

- RC Aircraft.
- Data Science
- Artificial Intelligence.
- Optimization.
- Programming.
- Mobile Robotics.
- Autonomous Vehicles
- Computer Vision.
- Software Define Radio

LANGUAGES

- Portuguese (native)
- English (Toefl IBT 106/120 as of 2014)

GITHUB

GitHub.com/Williangalvani

WEBSITE

GalvanicLoop.com

INFOCEL CELULARES

Salesman

January 2011 – June 2011

- Suport and sales.

PROJECTS - UAVS

DESENVOLVIMENTO/MONTAGEM DE VANTS

- Quadrotors (Multiwii, Apm, KapteinKuk).
- Trirotor (Multiwii).
- Tilt-rotor (MultiWii).
- Flying wings.
- Airplanes.

PROVANT GROUNDSTATION (Python + Qt)

- software developed for the PROVANT project, a tilt-rotor developed by UFSC and UFMG.

RPI MULTIWII FPV (Python + Qt)

- Experiments on the use of a Wi-Fi network for telemetry, video downlink, and control uplink. All links were implemented in UDP for a reasonable latency.

DRONE TOKEN TRACKER (Python + OpenCV)

- Token tracking system by a quadrotor on the V-Rep simulator.

DIYOSD MULTIWII (Arduino + Low-level + Electronics)

- Project of a low-cost OSD using only an Arduino and passive components, heavily execution time sensitive for data manipulation tasks.

AUTONOMOUS SOLAR GLIDER (WIP)

(X-Foil + 3D-Printing + Electronics)

- Design of an autonomous powered glider, autonomous both for navigation as in power generation.
- Objective of autonomously identifying and taking advantage of thermals.

PROJECTS - FULL STACK

WEBSITE (Django + Bootstrap)

- Personal blog in Python and Django.

HOBBYKING SEARCH

(Django + Bootstrap + JQuery + JQueryUI)

- Alternative system for searching batteries and motors on HobbyKing, using sliders for filtering various parameters.

ACCESS CONTROL SYSTEM - DAS (Django + Bootstrap + JQuery)

- Access control system interface for the Department of Automation and Systems at UFSC. This project entailed reverse engineering of the the hardware, software, and database shipped with the used systems.