# LUCAS COELHO FIGUEIREDO

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# **EDUCATION**

Federal University of Minas Gerais

08/2015 - 06/2018

Masters in Electrical Engineering

Belo Horizonte, Brazil

Thesis: Human-robot swarm interaction on multi-robot coverage control with Virtual Reality

Rockstart Accelerator

08/2016 - 08/2016

Startup Acceleration Program Rockstart Smart Energy

Amsterdam, The Netherlands

Federal University of Minas Gerais

03/2010 - 07/2015

Bachelor in Control and Automation Engineering

Belo Horizonte, Brazil

The University of Texas at Austin

08/2013 - 05/2014

Exchange Program in Electrical Engineering and Computer Science

Austin, USA

Federal Center of Technological Education

05/2007 - 12/2009

Technical Program in Electronics

Belo Horizonte, Brazil

#### **EXPERIENCES**

**Hexagon Mining** 

11/2017 - Today

Software Specialist & Scrum Master

Belo Horizonte, Brazil

- · Responsible for the Scrum process, meetings, managing conflicts between team members
- · Designed and participated on the development of solutions for autonomous trucks on mining industry, including a high precision, GPS-based parking assist and a mission manager for autonomous trucks
- · Main Python developer of the team

## **Newatt Energy Systems**

09/2015 - 08/2017

Co-Founder and CTO

Belo Horizonte, Brazil and Amsterdam, The Netherlands

- · Responsible for the technical decisions and relationship with partners and investors
- $\cdot$  Coordinated the application for Google Cloud Platform for Startups Program and received U\$ 100,000 in credits from Google
- · Managed the team for the implementation of the cloud structure in Node.js and Python
- · Implementation of embedded software in C++ for low power microcontrollers

# Freelance Android Developer

08/2016 - Present

Development Leader

Belo Horizonte, Brazil

- · Managed the whole project, since client prospection, requirements proposal, value negotiation, development and delivery
- · Worked in combination with a designer to deliver functional and good looking apps

# DTI Digital Technologies

10/2014 - 08/2015

IT Intern

Belo Horizonte, Brazil

- · Developed projects for supervisory systems, smartphone apps and administration systems in C#, Java and Android, following Agile methodology
- · Worked in internal tools for the company in direct contact with their top managerial staff

## Multi-robot Systems Laboratory - Boston University

05/2014 - 08/2014

Summer Research Intern

Boston, USA

- · Created algorithms for multi-robot systems applied in area coverage and autonomous exploration
- · Developed embedded software for mbed microprocessors in C++

· Published academic results at ICRA 2015 and IJRR 2017

## Computation and Robotics Lab - UFMG

10/2010 - 08/2013

Undergraduate Research Assistant and Electronics Technician Intern

Belo Horizonte, Brazil

- · Large experience in ROS, working on it since Diamondback version (2011) and becoming reference on ROS for labmates and professors
- · Designed and assembled five robots for indoor experiments based on the Open Hardware project Turtlebot
- · Software development in Linux environment using C++, ROS and MATLAB

#### AWARDS AND GRANTS

#### Rockstart Smart Energy Program

02/2016 - 08/2016

Participant Amsterdam, The Netherlands

- · Selected as the top 10 among more than 500 participating startups.
- · Received investment from a Dutch accelerator (Rockstart)
- $\cdot$  Participated in pitching competitions and investor meetings

# StartupFarm Industry

12/2015

Second Place

Belo Horizonte, Brazil

· Participated in an acceleration program from the biggest startup accelerator in Latin America, obtaining the second place at their Demo Day

# Brazilian Science Mobility Program

08/2013 - 08/2014

Awardee

Austin, USA

· Selected for the grant, that covered a year of studies at The University of Texas at Austin, including tuitions, housing, meals, travel expenses and internship

## **PUBLICATIONS**

#### International Journal of Robotics Research (IJRR)

02/2017

- · A. Pierson, L. C. Figueiredo, L. C. A. Pimenta, e M. Schwager. "Adapting to Sensing and Actuation Variations in Multi-Robot Coverage"
- · Experimental results at: https://www.youtube.com/watch?v=qyYt3frZ7aw
- · Considered the most influential journal in robotics research

## IEEE International Conference on Robotics and Automation (ICRA)

05/2015

- · A. Pierson, L. C. Figueiredo, L. C. A. Pimenta, e M. Schwager. "Adapting to Performance Variations in Multi-Robot Coverage"
- · Considered the best conference in robotics research

#### **SKILLS**

**Programming** C, C++, Python, Robot Operating System - ROS C#, Java, Node.js

Android, Google Cloud Platform, Amazon Web Services, MATLAB,

 ${\rm HTML},\,{\rm CSS},\,{\rm Javascript},\,{\rm SVN},\,{\rm Git}$ 

Databases MongoDB, PostgreSQL, InfluxDB

Electronics Arduino, Eagle, Altium

Office Word, PowerPoint, Excel, Visio Managerial Scrum, Agile, Lean Startup

Other AutoCAD, 3ds Max, Ubuntu, LaTeX, JUnit, UML

English Fluent Portuguese Native