# **ANA LUCIA CRUZ RUIZ**

### **Robotics Engineer**

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**♥** Turin, ITALY

% www.analuciacruz.me/



## **EDUCATION**

## PhD in Control and Signal Processing **INRIA, ENS Rennes**

Mov. 2013 - Nov. 2016

Rennes, France

# Master's degree in Advanced Robotics

École Centrale de Nantes

## Sept. 2011 - Sept. 2013

Nantes. France

## Bachelor's degree in Mechatronics

Universidad Tecnológica Centroamericana

🗎 Jan. 2007 - Mar. 2011

▼ Tegucigalpa, Honduras

### Robotics Nanodegree

Udacity (with BOSCH, Electric Movement, KUKA)

May 2017 - Ongoing

**♀** Online

### Machine Learning

Coursera (by Stanford University)

🛗 Jan. 2017 - Mar. 2017

Online

# **EXPERIENCE**

### Software engineer

**Objective Software (BMW partner)** 

🛗 Jan. 2018 - April. 2018

♥ Torino, Italy

# Robotics R&D engineer (Internship)

IRCCyN & Laval University (Canada)

Mar. 2013 - Aug. 2013

Nantes. France

### Mechatronics engineer

**3D Solutions** 

🛗 Jul 2010 - Dec. 2010

San Pedro Sula, Honduras

## **PROJECTS**

Deep learning for semantic image segmentation **Robotics Nanodegree** 

m Oct. 2017

Tools: TensorFlow, Keras, Unity game engine, Python

## MY LIFE PHILOSOPHY

"There is no greater education than one that is self-driven." Neil deGrasse Tyson

## MOST PROUD OF

Inspiring women to pursue careers in tech

I motivate women/girls from difficult areas in Honduras through talks.



#### **Promoting STEM**

I am organizing STEM workshops for honduran children from impoverished



Winner Fondation Centrale **Scholarship** 



Speech at Les Invalides, Paris

I had the chance to talk about my country and how the Fondation Centrale scholarship helped me become a robotics engineer.

# **TECHNICAL SKILLS**

Kinematics Dynamics

Machine learning

Control

Mechanical design

C++ (Basic)

Python (Advanced)

MATLAB (Advanced)

Simulink V-rep

CATIA

# LANGUAGES

**English** 

**Spanish** 

**French** 

Italian



## Object recognition with PR2 robot (simulation)

### **Robotics Nanodegree**

🛗 Aug. 2017 - Sept. 2017

Tools: ROS, Gazebo, Rviz, Python

Pick and place with KUKA KR210 robot (simulation)

### **Robotics Nanodegree**

🛗 Jul. 2017 - Aug. 2017

Tools: ROS, Moveit!, Gazebo, Rviz, Python

# Autonomous navigation of a mobile robot (simulation) Robotics Nanodegree

🛗 May 2017 - Jun. 2017

Tools: Python, Unity game engine

# ARACHNIS: A GUI for the design of cable-driven parallel robots

#### Master's Thesis

Mar. 2013 - Aug. 2013

Tools: MATLAB

### Design of a 3-DoF planar parallel robot

#### Master's project

🛗 Jun. 2012 - Jul. 2012

Tools: CATIA, MATLAB

## PRESENTATIONS/TALKS

# Scientific presentations (Conferences, workshops) IRCCVN. INRIA

**2013 - 2016** 

♥ France, Portugal, Germany

## Speaker at the "International Girls in ICT Day"

### International Telecommunications Union

▼ Tegucigalpa, Honduras

# Speaker at an event by IEEE/WIE (Women in Engineering) WIE. UNITEC

₩ Mar. 2016

▼ Tegucigalpa, Honduras

# Speaker at the event "Just like robotics, you have a great future"

#### École Centrale de Nantes

∰ Feb. 2016

**◊** Nantes, France

# Speaker at CIC Bank's ceremony at Les Invalides

### **Fondation Centrale**

Paris, France

## **PERSONAL SKILLS**

Perseverant Motivated Organized

Attentive to detail Instructive speaker

## **HOBBIES**

Clear and concise writer

- Popularizing science and technology
- Designing STEM/robotics workshops for children
- Tutoring
- Playing piano (classical, pop/rock)
- Writing

### REFEREES

#### **Prof. STEPHANE CARO**

- @ LS2N, École Centrale de Nantes

France

### **Prof. PHILIPPE CARDOU**

- Our University of Laval
- ➤ Philippe.Cardou@gmc.ulaval.ca

Canada