# **ANA LUCIA CRUZ RUIZ**

#### **Robotics Engineer**

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### **EDUCATION**

Robotics Nanodegree

Udacity (with BOSCH, Electric Movement, KUKA)

May 2017 - Ongoing

Online

Machine Learning

Coursera (by Stanford University)

🛗 Jan. 2017 - Mar. 2017

Online

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

## **EXPERIENCE**

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** 

₩ Oct. 2017

Tools: TensorFlow, Keras, Unity game engine, Python

Object recognition with PR2 robot (simulation)

**Robotics Nanodegree** 

math Aug. 2017 - Sept. 2017

Tools: ROS, Gazebo, Rviz, 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

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

Developing computational thinking I am organizing workshops to develop

computational thinking in honduran children from impoverished areas.

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** 

Control Machine learning

Mechanical design

C++ (Basic) Python (Advanced)

MATLAB (Advanced)

Simulink V-rep CATIA

## LANGUAGES

**English** 

**Spanish** 

**French** 

Italian

# 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

## PRESENTATIONS/TALKS

# Scientific presentations (Conferences, workshops) IRCCyN, 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**

▼ 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

Dec. 2012

Paris, France

### **PERSONAL SKILLS**

Perseverant Motivated Organized
Attentive to detail Instructive speaker
Clear and concise writer

### **HOBBIES**

- Popularizing science and technology
- Designing robotics/programming 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