

# ANA LUCIA CRUZ

## Robotics Engineer & STEM Educator

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📍 London (from 09/2019)

🌐 www.analuciacruz.me/



## EDUCATION

### PhD in Mechanical Engineering

INRIA (French research institute for digital sciences), ENS Rennes

📅 Nov. 2013 – Nov. 2016

📍 France

### Master's degree in Advanced Robotics

École Centrale de Nantes

📅 Sept. 2011 – Sept. 2013

📍 France

### Bachelor's degree in Mechatronics

Universidad Tecnológica Centroamericana

📅 Jan. 2007 – Mar. 2011

📍 Honduras

## ADDITIONAL EDUCATION

### Robotics Nanodegree

Udacity (with BOSCH, Electric Movement, KUKA)

📅 May 2017 – Oct, 2017

📍 Online

Autonomous navigation of mobile robots, object recognition, pick and place, deep learning for semantic image segmentation.

### Machine Learning

Coursera (by Stanford University)

📅 Jan. 2017 – Mar. 2017

📍 Online

## WORK EXPERIENCE

### STEM Lead

La Scuola Possibile

📅 2018 - 2019

📍 Italy

Lead curriculum developer & teacher of STEM subjects (including robotics & coding) from elementary school to high school.

### Software engineer

Objective Software (BMW partner)

📅 Jan. 2018 – April. 2018

📍 Italy

Assisted in the development and maintenance of car features, as part of the embedded systems team (lights domain).

## MY LIFE PHILOSOPHY

*"There is no greater education than one that is self-driven."*

## MOST PROUD OF



### Promoting STEM

I design and organize workshops to promote STEM and to democratize STEM education.



### Inspiring women to pursue careers in tech

I have been part of initiatives focused on motivating Honduran girls to pursue careers in STEM.



### 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.

## LANGUAGES

English



Spanish



French



Italian



## TECHNICAL SKILLS

Robotics

Coding

Mechanical design

Biomechanics

Bio-inspired control

Machine learning

Artificial Intelligence

MATLAB

Python

C++

ROS

Simulink

V-rep

CATIA

PhD student

### INRIA - Project ENTRACTE (Anthropomorphic Action Planning and Understanding)

📅 2013-2016

📍 France

Designed new and compact motion controllers for virtual characters (with bio-inspired actuators) based on human motion data.

Supervisor mechatronics projects

### ENS Rennes

📅 2014-2016

📍 France

Designed and supervised freshman year projects at the ENS university.

Robotics engineer (Internship)

### IRCCyN & Laval University (Canada)

📅 Mar. 2013 – Aug. 2013

📍 France

Designed a graphical user interface for the analysis and parametric design of Cable Driven Parallel Robots (CDPRs).

Mechatronics engineer

### 3D Solutions

📅 Jul 2010 – Dec. 2010

📍 Honduras

## STEM ADVOCACY

Move It Forward Torino - Women for digital and social innovation

### Digital Leadership Institute

📅 April 2018

📍 Italy

Scientific presentations (Conferences, workshops)

### IRCCyN, INRIA

📅 2013 – 2016

📍 France, Portugal, Germany

Speaker at the "International girls in ICT day"

### International Telecommunications Union

📅 April 2016

📍 Honduras

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

### WIE, UNITEC

📅 Mar. 2016

📍 Honduras

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

### École Centrale de Nantes

📅 Feb. 2016

📍 France

Speaker at CIC Bank's ceremony at Les Invalides

### Fondation Centrale

📅 Dec. 2012

📍 France

## PERSONAL SKILLS

Motivated

Organized

Perseverant

Instructive speaker

Attentive to detail

Clear and concise writer

## HOBBIES

- Writing
- Reading
- Tutoring
- Playing piano (classical, pop/rock)

## REFEREES

### ADRIANO TRAVAGLIA

@ Director AFGE, Start-up and EU Project Manager, General Director of Torino 3.0

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Italy

### Prof. STEPHANE CARO

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### Prof. PHILIPPE CARDOU

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Canada