

Raúl J. Maldonado

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*March 23, 1993; Querétaro, México.

*Interest Areas : Artificial Intelligence, Control Theory, Robotics
and Applied Mathematics.*

Education

Tecnológico de Monterrey <i>B.S. Mechatronic Engineering,</i>	Monterrey, México 2011 – 2016
Additional Education.....	
HsKa, exchange semester <i>Courses on environmental, magnetic, physical and electric sensors.</i>	Karlsruhe, Germany 2014 (Jan–Jul)
HsKa, renewable energy program <i>Diploma on renewable energies storing, production and in-depth theory.</i>	Karlsruhe, Germany 2014 (Jan–Jul)
HWatech Berlin, automotive summer school <i>Automotive engineering intensive course —diploma attained.</i>	Berlin, Germany Summer 2014
Udacity, Machine Learning Nanodegree <i>Specialization course. Project for graduation: NLP "what to read?" recommendations.</i>	Online 2017

Experience

Work Experience.....	
Fraunhofer Institute (Full time) — Mechatronic and Smart Data Engineer <i>Vision system and mechatronic implementation of a Sorting Machine for LEGO.</i>	Karlsruhe, Germany 2014 (Jul–Dec)
INDI (Part Time) — Design & Control Engineer <i>Construction of the control, mechanic and electronic system of an exoskeleton.</i>	Monterrey, Mexico 2015 (Jul–Dec)
Intelimetrica (Full Time) — Big Data Engineer & Data Scientist <ul style="list-style-type: none">• Translate the clients' business needs into data driven solutions.• Write statistical, data analysis presentations for the customers.• Work with the DEV Team to implement machine-learning models into web platforms.	Mexico City, Mexico 2016–2017(Jul)
MX-AI Solutions (Full time) — CEO & Data Scientist Team Leader <i>AI solutions for business such as: ML model to identify college dropouts, ML based model for vocational orientation and a AI model for sentiment analysis from images.</i>	Querétaro, México 2017 (Jul–Now)

Projects.....

Micro/Nano fabrication, MIT's MTL lab <i>Manufactured a solar cell, a Cantilever (MEM) and a microfluidic device.</i>	MIT - Boston summer 2015
Mind controlled A.R. Drone, Eduardo Mendivil, Ph.D. <i>Programed and implemented an EEG waves controlled air drone.</i>	ITESM - Monterrey 2015–2016
Petrochemical Plant's Control system, Antonio Favela, Ph.D. <i>Developed the control system of a PEMEX's petrochemical plant.</i>	ITESM - Monterrey 2015–2016
First Place in Air Race, Robochallenge World Cup <i>Won the first place in the world cup for the fastest most intelligent autonomous air drone</i>	Robochallenge - Rumania 2015–2016

Scientific Papers submitted and being reviewed.....

Raúl J. Maldonado, Antonio Favela. "Hybrid Modelation and Implementation of an Inverted Pendulum using Discrete State Space Analysis". ISA Transactions, 2017.
Carlos Sotelo, Antonio Favela, David Sotelo, Ezequiel Cruz, Raúl J. Maldonado. "Design of a control structure to dehydrate and desalt crude oil based on the pairing rules criteria." ISA Transactions, 2017.

Languages

Spanish: Native language

German: Intermediate (A2)

English: Proficient (TOEFL 640)