

# JUAN JOSÉ MADRIGAL MARTÍNEZ

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[LinkedIn](#) [GitHub](#) [Kaggle](#) [Udacity](#)

**Mathematician interested in Educational Technology and Artificial Intelligence, willing to explore original ways to bring new technologies to the world.** Especially gifted for

- Understanding and mastering Mathematics, interrelating all areas and branches
- Applying Artificial Techniques to real-world problems
- Lecturing and teaching difficult or abstract concepts, both for beginners and experienced

## SKILLS

**Programming Languages:** Python, Rust, Java

**Version Control Systems:** Git & GitHub

**Machine & Deep Learning:** SciKitLearn, TensorFlow

**Computer Vision:** OpenCV

**Operating Systems:** Linux, Windows

**Mathematics Softwares:** SageMath, Mathematica

**Web Design:** HTML5 / CSS3 / JS, Angular4

**Typesetting:**  $\LaTeX$

**Languages:** Native Spanish, Proficient English, German and French

## PROJECTS

### 3D Floor-based People Detector & Tracker

Oct. 2017 - Present

- Designed **DL-based detector** for people in large floors
- Successfully implemented **real-time tracker** inferring customer position on the store floor

### Time Series Forecasting with Deep Learning

Jan. 2018 - April 2018

- Implemented **LSTM Networks** for forecasting in retail

### Door-based People Detector & Tracker

Jun. 2017

- Designed **CV-based detector** for counting entering and leaving people in a shop

### Angular4 Front-End of WardenRetail App

Jul. 2017

- Successfully integrated **Material Design** and **ChartJS** Components

## EXPERIENCE

### Artificial Intelligence Engineer

[Warden Automation](#) | Feb. 2017 - Present

- Designing **object recognition and tracking algorithms**

### Lecturer & Tutor at Faculty of Mathematics

UCM | Sept. 2014 - April 2017

- Lectured *Intro to Mathematics, Linear Algebra, Real Analysis, Probability & Statistics, Algebraic Topology*
- Taught and tutored **200+ students** both for **undergraduate and graduate courses**

## EDUCATION

**Udacity Deep Learning Nanodegree**

Udacity | Aug. 2017 - Sept. 2017

**Udacity Machine Learning Nanodegree**

Udacity | Sept. 2016 - Feb. 2017

**Master in Advanced Mathematics** 9.81/10 - 3.75/4

UCM | Sept. 2013 - Jul. 2014

**Degree in Mathematics** 9.92/10 - 3.87/4

UCM | Sept. 2009 - Jul. 2013

## AWARDS

**National Graduation Award**

Sciences | Spain

**Extraordinary End of Studies Award**

UCM

**Honourable Mention**

49<sup>th</sup> International Mathematics Olympiad, IMO | Madrid | 2008

**Gold Medal**

44<sup>th</sup> Spanish Mathematics Olympiad | Valencia, Spain | 2008