# JUAN JOSÉ MADRIGAL MARTÍNEZ

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# Mathematician interested in Educational Technology, willing to explore new ways to bring advanced Mathematics to the world. Especially gifted for

- Understanding and mastering Mathematics, interrelating all areas and branches
- Lecturing and teaching difficult or abstract concepts, both for beginners and experienced
- Remarkable quick learning

# **S**KILLS

**Programming Languages:** Python, Java, Android **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

## **People Detector & Tracker**

Jun. 2017

- Designed **CV-based detector** for people buying in a shop
- Successfully implemented **real-time tracker** counting entering and leaving people

# **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

### CEO of Mathifold Project <a href="http://mathifold.org/">http://mathifold.org/</a>

Madrid | March 2014 - Present

[free, open-source online mathematics for students, teachers and workers]

- Leading 15+ collaborators including mathematicians, computer scientists and engineers
- Added 250+ posts including theory, exercises, animations and applets, among other useful materials
- Recorded **800+ users** and **12000+ views** in the last 3 months

#### **Lecturer & Tutor at Faculty of Mathematics**

UCM | Sept. 2014 - Present

- 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 Machine Learning Nanodegree
Master in Advanced Mathematics 9.81/10 - 3.75/4
Degree in Mathematics 9.92/10 - 3.87/4

Udacity | Sept. 2017 Udacity | Sept. 2016 - Feb. 2017 UCM | Sept. 2013 - Jul. 2014 UCM | Sept. 2009 - Jul. 2013

### AWARDS

National Graduation Award Extraordinary End of Studies Award Honourable Mention Gold Medal

Sciences | Spain

UCM

49<sup>th</sup> International Mathematics Olympiad, IMO | Madrid | 2008 44<sup>th</sup> Spanish Mathematics Olympiad | Valencia, Spain | 2008