

# JUAN JOSÉ MADRIGAL MARTÍNEZ

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

**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

## SKILLS

**Programming Languages:** Python

**Version Control Systems:** Git & GitHub

**Machine Learning:** SciKitLearn

**Operating Systems:** Linux, Windows

**Mathematics Softwares:** SageMath, Mathematica

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

**Typesetting:**  $\text{\LaTeX}$

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

## PROJECTS

**Creating Customer Segments** [Udacity MLND - Customer Segments Project](#) Nov. 2016

- Successfully implemented in **python** using the libraries of **SciKitLearn**
- Used **PCA** and **Gaussian Mixture Model**
- Reached **0.41** Silhouette Score for clustering

**Train a Smartcab to Drive** [Udacity MLND - Smartcab Project](#) Dec. 2016

- Successfully implemented in **python** and **pygame**
- Reached **A** Ratings for Safety and Reliability

## EXPERIENCE

**CEO of Mathifold Project** <http://mathifold.org/> 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 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

**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