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: 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 - Present
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   49th International Mathematics Olympiad, IMO | Madrid | 2008
Gold Medal   44th Spanish Mathematics Olympiad | Valencia, Spain | 2008