

Miguel Angel Maestre Trueba

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OBJECTIVE

To obtain an entry-level full-time position in the field of Computer Vision and Machine Learning, starting summer of 2018.

EDUCATION

Master of Engineering in Robotics Expected May 2018

University of Maryland, College Park. GPA: **4.00/4.00**

Courses with A+: Perception for Autonomous Robots, Vision in Aerial Robotics, Planning for Autonomous Robots.

Bachelor in Electronics, Robotics and Mechatronics September 2015

Major in Robotics and Automation

University of Seville, Spain.

RESEARCH/WORK EXPERIENCE

Research Assistant

Autonomy, Robotics and Cognition Laboratory. University of Maryland, College Park June 2017 - Present

- Visual Servoing techniques for manipulation tasks using a Baxter Robot using Reinforcement Learning.

Intern

Robotics, Vision and Control Research Group. University of Seville, Spain January 2015 - September 2015

- *Integrated System of Identification, Localization and Monitoring of people using Computer Vision.*

Research Volunteer

Electronic Technology Research Group. University of Seville, Spain July 2014 - April 2015

- Implementation of Skyper 32 Pro driver in a three phase inverter system and analysis of results".

SKILLS

Programming Languages: Python, C/C++, MATLAB, Rapid, VHDL

Tools: MATLAB, ROS, OpenCV, Keras, Point Cloud Library, MoveIt!, Raspberry Pi, Arduino, Simulink, Code Composer Studio, Xilinx ISE Design Suite, Eagle, ABB RobotStudio, CodeSys, Unity Pro XL, Vijeo Citect, LabView, MicroCap, Catia, Ableton Live, LaTeX, Microsoft Office.

Operating Systems and Robots: ROS, Baxter, TurtleBot 2, Parrot AR Drone. Linux (Ubuntu), Windows.

Languages: **Spanish** (Native language). **English** (Full professional proficiency). **French** (Basic reading and writing).

ACADEMIC PROJECTS

- Visual Odometry and Car Tracking for Autonomous Cars May 2017
- Traffic Sign Classification and Lane Detection for Autonomous Cars April 2017
- Detection of Augmented Reality Tags and projection of virtual shapes March 2017
- Extended Kalman Filter implementation for position, orientation and velocity estimation for aerial robots November 2017
- Visual SLAM and Localization bundle adjustment using factor graphs and GTSAM for aerial robots October 2017
- Vision-based 3-D Velocity Estimator for aerial robots November 2017
- Graph-search and sampling-based motion planning algorithms applied in Turtlebot robot May 2017
- Colored Buoys Detection for Underwater Robots using Gaussian Mixture Models March 2017
- People tracking with the use of computer vision for personnel control applications July 2015
- Arcade Videogame "PONG" designed with VHDL February 2014
- Design of a MIDI synthesizer in C++ using TI Microcontroller January 2015

ACTIVITIES

- **Class representative:** 2014-2015, University of Seville.
- **Volunteer work:** Teaching immigrants at risk of social exclusion: Spanish and computer skills.
- **Music Experience:** Member of a jazz club and knowledge of piano, guitar, bass, harmonica and banjo.

Employment Status = Lawful Permanent Resident (Green Card Holder)