EDUARDO ALVARADO

M.Sc. Embedded Systems Engineering

5th August, 1992, Madrid (Spain)
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CURRICULUM VITAE

EDUCATION

Apr 17 – Nov 19

ALBERT-LUDWIGS-UNIVERSITÄT FREIBURG | Freiburg (Germany)
M.Sc. IN EMBEDDED SYSTEMS ENGINEERING
- **Framework:** Robotics and Artificial Intelligence, specialised in Machine Learning, Deep Learning, Computer Vision and Autonomous Intelligent Systems.
- Active academic engagement in the technical faculty (HIWI, tutoring) and industry, particularly in the field of Autonomous Driving (thesis, internships).
- Very good programming skills in Python, C++ and ROS (Robot Operating System).

Sep 10 – Sep 14

UNIVERSIDAD CARLOS III | Madrid (Spain)
B.Sc. IN ELECTRONICS AND AUTOMATION ENGINEERING
- **Framework:** Digital & Analog Electronics, Robotics and Control Engineering.
- **Thesis: Development of an Augmented Reality App based on Localization.** Programming a GPS-System and AR environment in JAVA for Android devices to visualize different placements based on the device location.

ERASMUS Scholarship for 6 months at the SAMSUNG Electronics R&D Center of Poznan University of Technology, in the degree of **M.Sc. Electronics and Telecommunications – Information and Communication Technologies**. Main study fields:
- Multimedia Engineering (image/video processing), Digital Signal Processing and C++.
- Extensive use of MATLAB. **Final Project:** Design of an algorithm to remove image noise transmitted between transmitter and receiver.

EXPERIENCE

May 19 – Nov 19

ROBERT BOSCH GMBH | Renningen, Stuttgart (Germany)

MASTER THESIS – DEEP MULTIMODAL LEARNING FOR AUTONOMOUS DRIVING
Examiners: Prof. Dr. Joschka Bödecker, Prof. Dr. Abhinav Valada
- Research on novel deep neural networks in sensor-fusion for Autonomous Driving.
- Research into Object Tracking for multiple sensor modalities (video, radar).
- Implementation of Object Detection methods based on Region Proposal Networks.
- Study of state-of-art deep multimodal learning methods, sensor architectures and multimodal datasets for Autonomous Driving.

Oct 18 – Feb 19

ALBERT-LUDWIGS-UNIVERSITÄT FREIBURG | Freiburg (Germany)

RESEARCH ASSISTANT – AUTONOMOUS INTELLIGENT SYSTEMS
- HW/SW implementation of a scale autonomous car for educational purposes.
- Integration of Autonomous Driving simulations with AirSim and ROS built on Unreal Engine for camera and LiDAR sensors.

Apr 18 – Oct 18

ZF FRIEDRICHSHAFEN AG | Friedrichshafen (Germany)

INTERNSHIP – DEV-TOOLS ENGINEER FOR AUTONOMOUS DRIVING
- ROS tools-development in Python for manipulation and visualization of vehicle-data.
- HW/SW testing and integration of closed-loop systems (LIDAR, radar, camera) in simulated environments and on-board the test-vehicle.

Sep 17 – Feb 18

ALBERT-LUDWIGS-UNIVERSITÄT FREIBURG | Freiburg (Germany)

RESEARCH ASSISTANT – AUTONOMOUS INTELLIGENT SYSTEMS
- TurtleBot3 Waffle HW/SW set-up for teleoperation and SLAM purposes.
- Use of ROS Kinetic and RViz for indoor mapping operations.

BQ MUNDO READER S.L. | Madrid (Spain)

Sep 15 – May 16

BUSINESS STRATEGY ANALYST
Responsible for the Strategy Planning at the Robotics and 3D Printers Division.
- In-depth knowledge of Additive Manufacturing technologies. Experience as big-data analyst and project management for the Industry 4.0 sector.

Apr 15 – Sep 15

CHANNEL DISTRIBUTION MANAGER
Responsible for the International Sales team at the Robotics and 3D Printers Division.
- Lecturer for workshops and trainings in the field of Robotics and Additive Manufacturing for international groups, clients and educational institutions.

Nov 14 – Apr 15

QUALITY ASSURANCE ENGINEER
Member of the Quality Department at the Robotics and 3D Printers Division.
- Involvement in the development, research and quality-monitoring of robotic projects in a lab environment (Arduino-based hardware, C++/Python-based software).
- Creation and review of results reports, detailed test plans, technical design documentation and applications papers.
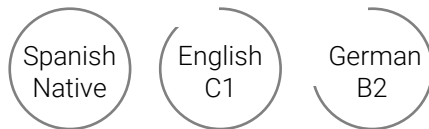
ROBERT BOSCH ESPAÑA S.A. | Madrid (Spain)

Apr 14 – Sep 14

INTERNSHIP - ELECTRONICS AND INFORMATION TECHNOLOGIES ENGINEER
- Management of the IT system at PA-ATMO2/EES. Continuous work with Bosch-headquarters in Germany.
- Creation of technical documentation and test reports concerning computer systems, production lines for automotive parts and computer-vision equipment.

LANGUAGE SKILLS

Spanish Native

English C1

German B2

- TOEFL iBT 104 pts (R28, L24, S24, W28)
- telc – Zertifikat Deutsch B2

IT SKILLS

Python	● ● ●	GNU/Linux	● ● ○
C++	● ● ○	ROS Kinetic	● ● ○
Java	● ○ ○	Git	● ● ○
PyCharm	● ● ●	Tensorflow	● ● ○
MATLAB	● ● ○	Keras	● ● ○
LabView	● ○ ○	MS Office	● ● ●

VOLUNTARY WORK

BEST UC3M | Madrid (Spain)

Sep 12 – May 15

PUBLIC RELATIONS MANAGER, ACTIVE MEMBER
BEST CARLOS III is the local group of Board of European Students of Technology, engineering association with presence in 33 countries and 96 universities. Courses attended:
- **BEST Summer School: Light Weight Structures.** Course about Materials Engineering. Vrije Universiteit Brussels, Belgium (270 hours) – 7/2012
- **BEST Summer School: Energy Engineering.** Course about Energy and Power Engineering. University Carlos III, Madrid, Spain (270 hours) – 07/2013

INTERESTS AND ACTIVITIES

I love skiing. Every year I save money and try to visit a different place to practice my favorite sport. I also like to keep myself regularly informed about new advances in robotics, trying to get my nieces interested in them too. In my free time, I work on my personal blog about Deep Learning, and learn to play the piano.

Stuttgart, on 14th April 2020