



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:** Artificial Intelligence and Robotics, specialised in Machine Learning, Deep Learning, Computer Vision and Autonomous Intelligent Systems.
 - Active academic engagement in the faculty (HIWI, tutoring) and industry, particularly in the field of Computer Vision and Autonomous Driving (internship, thesis).
 - Strong programming skills in C++, Python 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 a localization-based Augmented Reality (AR) framework.** Programming of an AR environment in C++ based on Google Geo-location APIs, for the visualization of diverse points of interest with respect to the user 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 MATLAB experience. **Final Project:** Design of an algorithm to remove noise from images caused during transmission between emitter and receiver.

EXPERIENCE

- ROBERT BOSCH GMBH | Renningen, Stuttgart (Germany)**
- May 19 – Nov 19 **MASTER THESIS – DEEP MULTIMODAL LEARNING FOR AUTONOMOUS DRIVING**
Examiners: Prof. Dr. Joschka Bödecker, Prof. Dr. Abhinav Valada
- Research on novel deep neural networks and learning-based representations in the field of sensor-fusion for Autonomous Driving.
 - Research on Object Tracking and Detection for multiple sensor modalities (video, radar) based on Region Proposal Networks.
 - Study of state-of-art deep multimodal learning techniques, sensor architectures and multimodal datasets for Autonomous Driving.
- ALBERT-LUDWIGS-UNIVERSITÄT FREIBURG | Freiburg (Germany)**
- Oct 18 – Feb 19 **RESEARCH ASSISTANT – AUTONOMOUS INTELLIGENT SYSTEMS**
- HW/SW implementation of a scale autonomous car for educational purposes.
 - Integration of Autonomous Driving simulations built on Unreal Engine 4 along with AirSim and ROS for the virtual acquisition of camera- and LiDAR-data.
- ZF FRIEDRICHSHAFEN AG | Friedrichshafen (Germany)**
- Apr 18 – Oct 18 **INTERNSHIP – DEV-TOOLS ENGINEER FOR AUTONOMOUS DRIVING**
- ROS tools-development in C++/Qt for manipulation and visualization of vehicle-data.
 - HW/SW integration of closed-loop systems in both, simulated environments and on-board the test-vehicle, for the testing of LiDAR, camera and radar sensors.
- ALBERT-LUDWIGS-UNIVERSITÄT FREIBURG | Freiburg (Germany)**
- Sep 17 – Feb 18 **RESEARCH ASSISTANT – AUTONOMOUS INTELLIGENT SYSTEMS**
- TurtleBot3 Waffle HW/SW set-up for teleoperation, SLAM and indoor mapping.

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 research, development and quality-monitoring of robotic projects in a lab environment (Arduino, Raspberry Pi, C++/Python-based software).
- Creation and review of results reports, test plans and technical design documentation.

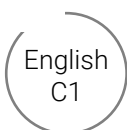
ROBERT BOSCH ESPAÑA S.A. | Madrid (Spain)

Apr 14 – Sep 14

INTERNSHIP - ELECTRONICS AND INFORMATION TECHNOLOGIES ENGINEER

- Management of the IT system at PA-ATM02/EES. Creation of technical documentation and test reports concerning computer systems, production lines for automotive parts and computer-vision equipment.

LANGUAGE SKILLS



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

IT SKILLS

Python
C++
C#
OpenGL
MATLAB
MS Office



GNU/Linux
Git
ROS Kinetic
Tensorflow
Unreal Engine
Unity



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 photography portfolio and personal blog about AI in game-development, while learning more about game-engines such as Unreal and Unity, or 3D libraries like DirectX or OpenGL. When I have opportunity, I like to develop my own game projects and research into novel AI techniques for 3D environments.

Stuttgart, on 25th May 2020

A handwritten signature in black ink.