

SUMMARY

Electronics industrial engineer specialized in embedded systems focused in computer vision, artificial intelligence and robotics. Interested in developing the technologies that are going to improve our quality of life and develop society. Results oriented and eager to learn. Experienced in consulting and startups. Passionate of automation, focusing in task automation to gather the maximum time to focus on delivering quality products.

WORK EXPERIENCE

SOFTWARE DEVELOPER | Jul 2021 - Currently | Amsterdam (Netherlands)

- Development of data acquisition system for new generation microscope.
- Imaging acquisition and calibration algorithms.



PRINCIPAL ENGINEER | Jan 2021 - Jul 2021 | Remote (Netherlands)

- Incorporation of Emotion Research Lab computer vision technology to Uniphore's during acquisition phase.
- Deployment of a highly scalable Deep learning platform for video processing in real-time.



TECH LEAD | Jan 2019 - Jan 2021 | Valencia (Spain), Remote (Netherlands)

- Responsible of AI technology and development.
- Develop a product up to the acquisition of the company from a 100M\$ Series C company.
- Deployment of a highly scalable Deep learning platform for video processing in the cloud using AWS ECS.
- Emotion recognition pipeline implementation in C++ and Tensorflow.
- Development of a multi-platform automatic release for Windows, Linux (CPU, GPU) and Jetson platform.
- Using DevOps practices, set up CI pipelines for process automation and improvement of productivity during software life cycle.
- Core library migration from C++98 to C++14.



COMPUTER VISION DEVELOPER | Ago 2017 - Oct 2018 | Vigo (Spain)

- Development and fine-tuning of object detection pipelines for embedded devices deployment based on Deep Learning (Caffe and Tensorflow).
- Research and implementation of pipelines focusing in fast inference (Intel Movidius, TensorRT, TF Lite).
- Development of a system for vehicles and pedestrian counting and tracking in real-time. (Jetson Board, C++14)
- Development of a semi-automated development and testing suite for deep learning models to decrease the time between experiments.



XESOL innovation

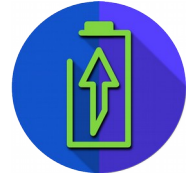
JUNIOR CONSULTANT | Feb 2016 - Feb 2017 | Valencia (Spain)

- Full stack web development.
- Keywords: Java, Spring, Hibernate, ExtJS and Oracle RDBMS.



DEVELOPER & CO-FOUNDER | Sep 2015 – Feb 2016 | Valencia (Spain)

- Android app development.
 - Embedded device prototyping and development.
- Keywords: C, C++, CORTEX-M4, ANDROID, 3D Printing, Java.



DEVELOPER | Jun 2015 – Sep 2015 | Valencia (Spain)

- Android development: Facebook friends quiz, sickness predictor, several speed reflex games.
 - Development of booking platform for sport centers.
- Keywords: Android, JavaScript, Java.



TRAINEE | Oct 2014 – Feb 2015 | Gdansk (Poland)

- Sales team support from the technical point of view.
- Technical presentations to potential customers.



EDUCATION

Oct 2021 – Jul 2023 | **MSC ARTIFICIAL INTELLIGENCE'S RESEARCH** - *Specialty in reasoning and planning.* Universidad Internacional Menéndez Pelayo (Spain)

Oct 2018 – Dec 2018 | **SCHOOL OF ARTIFICIAL INTELLIGENCE SCHOLARSHIP**

Received a two-months full scholarship (valued in 20.000€) to participate at the School of Artificial Intelligence of Pi School. Selected among some of the brightest Engineers in the field, as a scholarship winner, I worked on a project in deep estimation with only monocular vision.

Feb 2017 – Mar 2018 | **SELF-DRIVING CAR NANODEGREE**

The program contains the next topics: Computer vision, deep learning, machine learning, sensor fusion, localization, control systems and path planning.

It is focused on developing the necessary understanding and technical skills to create an autonomous vehicle able to drive safely in public roads.

2010-2014 | **BACHELOR'S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATION**

ENGINEERING - *Specialty in embedded system and Real-Time computing.* Universitat Politècnica de València. (Spain)

Final thesis (**A grade**): Cross-platform Qt application for the automatic control of liquids tank. QML, C++

2014 SPRING SEMESTER | **ERASMUS SCHOLARSHIP**

Faculty of Electrical Engineering. České vysoké učení technické v Praze. Prague (Czech Republic)

PROJECTS

- Telegram bot to detect and classify fish species from photos. Telegram API, Python, Tensorflow.
 - Autonomous maritime drone. Raspberry Pi, C++, Python, Qt, QML, 3D modeling & printing.
 - Vehicle detection & tracking with OpenCV and deep learning approaches. Python, OpenCV, Keras, Machine learning.
 - Lane detection in the road using computer vision techniques. Python, OpenCV.
 - Traffic sign identification and classification. Python, Tensorflow, OpenCV.
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