

SUMMARY

Electronics engineer specialized in embedded devices 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, eager to learn, with experience in the corporate world and also with experience working in international environments.

"Optimized code is important, but readable and maintainable most of the time is enough."

WORK EXPERIENCE

AI MANAGER | May 2019 – Currently | Valencia (Spain)

- Responsible of AI technology and development.

C++ & AI DEVELOPER | Jan 2019 – Currently | Valencia (Spain)

- Migrate vision algorithms from manual feature selection to end-to-end approaches. Improvement of accuracy whilst decreasing the inference time.
- 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 an semi-automated development and testing suite for deep learning models to decrease the time between experiments.



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

- Development of new releases for the Valencian Health Department. The framework used was based on Spring, Hibernate, ExtJS and Oracle RDBMS.
- Migration from JSP and Struts to Spring, Hibernate and ExtJS stack.
- Development of new releases in different apps for the University of Valencia using: JSP, Struts and Oracle RDBMS.



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

- Development of a technology that allowed sharing energy between smartphones with our proprietary cable. (C, CORTEX-M4)
- Development of a middle-man that showed ads in the phone that was charging as a monetization objective.
- Development of an Android app to show our user base the location of the people with a Uplite device around them.



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

- Android apps & games development: Facebook friends quiz, sickness predictor, several speed reflexes games.
- Development of booking platform for sport centers.



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

- Sales team support from the technical point of view.
- Development of an audiovisual guide for the iModCloud software new customers.
- iModCloud/NxDynamics presentations to potential customers.



EDUCATION

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.

SKILLS

Languages: Spanish: Native | English: Intermediate-high

OS: Development - Ubuntu 16.10

Programming languages: C++, Python, QML, Java and JavaScript.

Control version: Git, SVN, and CVS.

PCB board design: KiCad.

3D Design: Autodesk Inventor, Cura 2.

Embedded platforms: Jetson Board TX2, Raspberry Pi, STM32F4 (Cortex-M4), FRDM-K64 (Cortex-M4) and Arduino.
