

Miquel Martí

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CONTACT



Full name: Miquel Martí i Rabadán

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LANGUAGES

- **Catalan & Spanish** Native
- **English** Full professional proficiency, CEFR C2
- **Swedish** Elementary proficiency, CEFR B1+
- **French** Elementary proficiency, CEFR B1

SKILLS

UNIX/Linux • Windows • Git(Hub)
Python • Matlab • C++
L^AT_EX • Java • Bash
SciPy • ROS • Gazebo • OpenCV
Keras • TensorFlow • Caffe
Hadoop • RaspberryPi • JetsonTX1

COURSEWORK

Machine Learning • Image Based Recognition and Classification • Artificial Intelligence and Multi-Agent Systems • Image Analysis and Computer Vision • Bayesian Filtering • Image Processing • Digital and Statistical Signal Processing • Audio and Video Encoding • Hybrid and Embedded Control Systems • Modelling of Dynamical Systems • Computational Investing • Remote Sensing • Wireless Systems • Distributed Systems • Concurrent programming • Embedded Systems

EDUCATION

KTH - ROYAL INSTITUTE OF TECHNOLOGY

School of Electrical Engineering

MSc IN ELECTRICAL ENGINEERING

Aug 2015 - June 2017 | Stockholm, Sweden

Civilingenjörsexamen. Double Degree program UPC-KTH.

Following MSc in Systems, Control and Robotics, track in Robotics and Autonomous Systems.

GPA: 3.4 / 4.0

UPC - TECHNICAL UNIVERSITY OF CATALONIA

ETSETB - TelecomBCN

MSc IN TELECOMMUNICATIONS ENGINEERING

Sep 2014 - June 2017 | Barcelona, Spain

Double Degree program UPC-KTH

Minor in Networked Systems, Top 5%

Grade: 8.9 / 10

BENG IN SCIENCE AND TECHNOLOGY OF TELECOMMUNICATIONS

Sep 2010 - June 2014 | Barcelona, Spain

Top 5%, Recognition for outstanding academic achievement

Grade: 7.4 / 10

EXPERIENCE

NATIONAL INSTITUTE OF INFORMATICS | RESEARCH INTERN

Oct 2016 – April 2017 | Tokyo, Japan

- Implementation and adaption of state-of-the-art deep learning models for Semantic Segmentation and Object Detection from UAV imagery.
- Creation of a dataset for Action Detection from UAV imagery.
- Master's Thesis: *Multi-task deep learning models for real-time deployment in embedded systems*

INTERMODALICS | ROBOTICS INTERN

June 2016 – Oct 2016 | Leuven, Belgium

- Development of an industrial mobile manipulator based on an omnidirectional base and a UR10 robotic arm for picking diverse objects.
- The project made extensive use of ROS and included 3D vision using Pick-it camera, navigation and motion planning for the arm.

EVERIS | BIG DATA CENTER OF EXCELLENCE INTERN

Feb 2015 – Aug 2015 | Barcelona, Spain

- Analysis of tools, definition of use cases and architectures.
- Implementation of POCs/demos of BigData tools inside and outside the Hadoop ecosystem, e.g. Flume, Kafka, RabbitMQ, Spark, MapReduce.

ITNOW! | OPERATIONAL QUALITY & AVAILABILITY ASSURANCE INTERN

Apr 2013 – Oct 2013 | Barcelona, Spain

- Implementation of ITIL methodologies in CaixaBank LAN Department
- Management of inventory, incidences and transition between SW tools
- Support to managers with reporting and SLA control

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AWARDS & ACTIVITIES

- 2016 - Winner of Smart Cities Green Hackathon, Stockholm, Sweden.
- 2015 - Winner of Global Urban Datafest Smart Cities Hackathon BCN, Barcelona, Spain.
- 2014 - Winner of European BEST Engineering Competition in the Team Design category, Barcelona, Spain.
- 2014 - Everis scholarship covering the MSc first year enrollment expenses.
- 2009 - Participant at Model United Nations of Goldberg, Germany.

PROJECTS

COMPARING DIFFERENT LOSS FUNCTIONS IN IMAGE CLASSIFICATION

May 2016 - June 2016 | Stockholm, Sweden

Course Project Study on the effect of using different loss functions on the convergence speed and final accuracy of a model for image classification. A fully convolutional neural network model was trained on the CIFAR-10 dataset using Keras on TensorFlow in AWS.

LAWN MOWER SEARCH & RESCUE

Jan 2016 - June 2016 | Stockholm, Sweden

Course Project Simple Search & Rescue solution in simulation using ROS and Gazebo. A team of robots equipped with a simple ranging sensor finds the victims in an unknown map and brings them to a safe area when located.

MTP TELECOM COMPETITION | TEAM LEADER AND MANAGER

Feb 2015 - June 2015 | Barcelona, Spain

Course Project Lead a team of 8 students in the design and implementation of a radio link between two devices, including electronics, protocol and software. Lead the project definition, kept track of the progress, expenses and resources and coordinated the team.

EFFECTS FOR AUGMENTED REALITY AUDIO (ARA) HEADSETS | BACHELOR'S THESIS

Jan 2014 - July 2014 | Espoo, Finland

Implemented a digital, real-time all-pass hear-through system for an ARA headset and a Matlab real-time program for the evaluation of different sound effects in ARA applications.

UPC NANOSAT LAB | PAYLOADS SUBSYSTEM LEADER

Sep 2013 - Jan 2014 | Barcelona, Spain

Lead the integration of different scientific payloads in the 3Cat-1, a 10x10x10cm nano-satellite. Designed, implemented and tested a deployment system for a wireless power transfer experimental payload, a temperature sensor for calibration of a graphene transistor and worked together with the system integrator for the physical integration of all the subsystems into the tiny satellite.

PUBLICATIONS

OKUTAMA-ACTION: AN AERIAL VIEW VIDEO DATASET FOR CONCURRENT HUMAN ACTION DETECTION | MOHAMMADAIN BAREKATAIN, MIQUEL MARTÍ ET AL. TO APPEAR IN COMPUTER VISION AND PATTERN RECOGNITION WORKSHOPS (CVPRW) 2017

July 2017 | Honolulu, Hawaii

A MULTITASK DEEP LEARNING MODEL FOR REAL-TIME DEPLOYMENT IN EMBEDDED SYSTEMS | MIQUEL MARTÍ AND ATSUTO MAKI. SWEDISH SYMPOSIUM ON DEEP LEARNING (SSDL) 2017

June 2017 | Stockholm, Sweden

SITUATION AWARENESS FOR UAVS USING DEEP LEARNING TECHNIQUES | MIQUEL MARTÍ ET AL. SIG-AGI 2017

March 2017 | Tokyo, Japan

EVALUATION AND SIMULATION OF HEADPHONE CHARACTERISTICS THROUGH ACOUSTIC MEASUREMENTS | JUSSI RÄMÖ, MIQUEL MARTÍ ET AL. BALTIC-NORDIC ACOUSTIC MEETING (BNAM) 2014

June 2014 | Tallinn, Estonia