Alberto **Montes**

COMPUTER SCIENCE STUDENT

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"The best way to predict your future is to create it."

Education

Master in Computer Science   *Zürich, Switzerland*

SWISS FEDERAL INSTITUTE OF TECHNOLOGY (ETHZ)   *Sep. 2016 - Present*

Specialization in Computer Vision and Machine Learning/AI

Bachelor in Science and Technology in Telecommunications   *Barcelona, Spain*

POLYTECHNIC UNIVERSITY OF CATALONIA   *Sep. 2011 - Jul. 2016*

GPA – 9.0/10

Bachelor of Engineering in Industrial Technologies   *Barcelona, Spain*

POLYTECHNIC UNIVERSITY OF CATALONIA   *Sep. 2011 - Jul. 2016*

GPA – 8.7/10

Experience

Backend Engineer   *Barcelona, Spain*

VERSE TECHNOLOGIES   *Oct. 2015 - Jul. 2016*

- Implemented RESTful API server for easy to send money mobile application (Verse in Apple App Store and Google Play Store).
- Built and deploy infraestructure using Docker containers.
- Writed unit tests over the codebase.
- Developed a Payment module which integrates with RedSys (a Payment Gateway in Spain).
- Worked in multiple tasks like: async task scheduling, automatic email composition, code profiling, robust web robots.

OpenDaylight Project   *San Francisco, USA*

SUMMER INTERN   *Jun. 2015 - Sep. 2015*

- Implemented a GUI that simplifies provisioning, programming, and visualization of network overlays using the LISP Flow Mapping service from Cisco in the SDN open source project OpenDaylight.
- Invited to atend to the OpenDaylight Summit 2015 in Santa Clara (USA) with all the expenses covered.

Research

Temporal Activity Detection in Untrimmed Videos with Recurrent Neural Networks   *Barcelona, Spain*

BACHELOR THESIS   *Feb. 2016 - Jul. 2016*

- The thesis explores the use of Convolutional Neural Networks and Recurrent Neural Networks to classify activities in videos and temporally localize this activities.
- Participated in *ActivityNet Large Scale Activity Recognition Challenge* at CVPR 2016.
- The work was presented at *NIPS 2016 Workshop LSCVS* winning the *Best Poster* award. Project Link

Video Object Segmentation   *Zürich, Switzerland*

MASTER THESIS AT COMPUTER VISION LAB ETHZ   *Jul. 2017 - Present*

- The thesis explores interaction between the point regression techniques and the dense prediction techniques, especiffiically in the fifield of video object segmentation.
- Developed a web interface for interactive video object segmentation in real time. In addition can be used to visualize segmentation results.

Publications

2016   **A. Montes**, A. Salvador, S. Pascual, and X. Giro-i-Nieto. Temporal Activity Detection in Untrimmed Videos   *UPC*
       with Recurrent Neural Networks. In *arXiv:1608.08128*

Skills

Programming	Python, Java, C/C++, Matlab, R, SQL, LaTeX
Numeric & ML Libraries	NumPy, Scikit-Learn, Pandas, Keras, TensorFlow, PyTorch, OpenCV
Web	HTML5, JavaScript, CSS, Django, Flask
Other	Git, Docker, nginx
Languages	Spanish, Catalan, English, German (Basic Knowledge)