Guim Perarnau

Actively seeking opportunities within research engineering

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Education

M.Sc. in Computer Vision.   Grade: 9.11/10
Autonomous University of Barcelona

📅 Sept 2015 – Sept 2016   📍 Barcelona, Spain

Graduated second in the class with 4 honors in:

- Visual recognition
- Video analysis
- Machine learning
- Research dissemination

B.Sc. in Computer Science.   Grade: 9.08/10
Autonomous University of Barcelona

📅 Sept 2011 – June 2015   📍 Barcelona, Spain

Graduated first in the class with 25 honors, including:

- Machine learning
- Analysis and design of algorithms
- High performance computing
- Artificial intelligence
- Computer vision
- Statistics

Honors & awards

🏆 **Best final master dissertation**   **M.Sc. in CV, Sept 2016**
Invertible Conditional GANs: change attributes of your face (e.g. modify gender) using neural nets. Lua (+Torch). Grade: 10/10 Code available at `https://github.com/Guim3/IcGAN`

🏆 **Top 5 highest academic performance**   **M.Sc. in CV, Sept 2016**
2nd position among 29 students.

🏆 **Best final degree project**   **B.Sc. in CS, Dec 2015**
Map generation based on images taken with a UAV. MATLAB. Grade: 9.9/10.

🏆 **Highest academic performance**   **B.Sc. in CS, Dec 2015**
Graduated first of a class of 89 students.

📖 **Collaboration scolarship**   **Nov 2014 – Feb 2015**
A contribution of 2000€ to work on research for a total amount of 450 hours. Given to students with the highest academic grades.

Experience

Intern student
Computer Vision Center

📅 Sept 2014 – June 2015   📍 Barcelona, Spain

- Developed from scratch a hand detector on a budget RGB camera using machine learning techniques. Obtained an accuracy of 97.44% (windows-based). MATLAB, Python.
- Designed a pattern code identifier on ID cards with a 97.15% of accuracy. MATLAB.
- Created a music symbol classifier as a first step to read handwritten music sheets. It successfully identifies 31 different symbols with an accuracy of 91.58%. MATLAB.

Summary

Recently graduated with honors and focused on the design of machine learning solutions. Seeking opportunities to enhance my skill set on deep learning engineering.

Publications

👥 **Conference Proceedings**

- Perarnau, Guim et al. (2016). "Invertible Conditional GANs for image editing". In: *NIPS Workshop on Adversarial Training.*

Projects

Traffic sign detector
M.Sc. project

📅 Sept 2015 – Feb 2016

Built a detector using machine learning techniques able to classify 15 traffic signs in real time with 81.05% precision. Python.

Optimizing neural network training
B.Sc. project

📅 Dec 2014 – Jan 2015

Optimized the forward and backpropagation step of an existing neural net implementation, improving its speed by 291%. C (+OpenMP).

Technical skills

| Computer vision | Machine / deep learning |

| High performance computing |

| Python | Lua (+Torch) | MATLAB |

| C (+OpenMP) | LaTeX |

Languages

English: C1 level   ●●●●○

Spanish: native   ●●●●●

Catalan: native   ●●●●●