JOÃO CARTUCHO

Personal Information

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Education

POLITECNICO DI TORINO — Torino, TO, ITALY
09/2015–08/2016
Abroad as an Erasmus student in Computer Science Courses.

- Able to develop complex data structures and ADTs (linked lists, queues, stacks, heaps, trees, hash tables and graphs) and related algorithms
- Able to evaluate algorithm complexity and improve efficiency in terms of execution time and/or memory use
- Able to solve optimization and network flow problems, using exact methods, heuristics or linear programming
- Able to develop strategies for problem solving with deep learning, pattern recognition or neural networks
- Able to develop computer vision applications

INSTITUTO SUPERIOR TÉCNICO, LISBON — Lisbon, LIS, PORTUGAL
09/2013–now
(planned) M.S. in Aero-Space Engineering.
Expected graduation date: 12, 2017
Current Master's Average (0-20): 17.44

- Able to fully develop all stages of the life-cycle of airplanes, helicopters, robotized aircrafts, spaceships and satellites, from its conception and project, to the operation and maintenance, tests and production.

UNIVERSITY ENTRANCE EXAMINATION — PORTUGAL
National Exams (final grade 0-20):

- Mathematics A: 18.1
- Physics and Chemistry: 19.8

Internship Experience

GOOGLE SUMMER OF CODE 2016 — Torino, Italy
05/2016–08/2016
Multi-language OpenCV Tutorials in Python, C++ and Java

- As a student, I worked as an open source code developer for this Google project. My project consisted of developing tools to improve the documentation and official tutorials of OpenCV, an open source computer vision library. Since OpenCV has had 10 million downloads so far the tutorials are seen by thousands of people every single day, which demonstrates the impact of this project.

Project Activities

FINGERPRINT BADGING SYSTEM — Torino, Italy
02/2016–07/2016
Course: Project and Laboratory on Communication Systems.
Developing a Badging System Device using .NET Gadgeteer FEZ Spider Kit from GHI Electronics.
Final grade 0-30 : 30L (excellent)

HANDWRITING DIGIT RECOGNITION — Torino, Italy
09/2015–07/2016
Course: Computer Vision.
Developing Software to recognize handwritten digits in a photo.
Final Project grade 0-5 : 5

CLUSTERING ALGORITHM OF VECTOR QUANTIZATION — Torino, Italy
09/2015–07/2016
Course: Artificial intelligence.
Clustering the MNIST 10-digit set database, obtaining a final error of 4.8% using a 10 minutes computation over the 60K-digits set.
Final grade 0-30 : 27

Skills

Programming Languages: C (grade 19/20), C++, C#, Java (grade 30/30), Matlab, Python, HTML, Javascript, jQuery
Extra Interests: OpenCV, CPLEX, Solid Works, Photoshop, Sony Vegas, Micro Framework.NET, ROS, Adobe Illustrator, Unity
Languages: Portuguese (native), English (fluent) - Cambridge ESOL - FCE, Italian (fluent), Spanish (beginner)

References

Vincent Rabaud
Google Inc., senior software engineer
OpenCV Foundation, co-founder
vincent.rabaud@gmail.com

Valentina Gatteschi
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Last update: November 28, 2016