João Cartucho

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github.com/Cartucho
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EDUCATION

Instituto Superior Técnico
Lisbon, Portugal — 2014-2018
B.Sc., M.Sc. Aerospace Engineering

Politecnico di Torino
Torino, Italy — 2016
Erasmus in computer science courses

SKILLS

Languages Portuguese, English, Italian

Programming C, C++, Python, Java

Platform Linux

Software Git, OpenCV, ROS, Shell

Coursework Algorithms, Artificial Intelligence, Autonomous Systems, Computer Vision, Data Structures

AWARDS

FCT Scholarship - IST/CMU
Selected for 3-month long student exchange program in USA.

Google Summer of Code
Selected twice (maximum) and successfully completed my 2016 and 2017 projects.

Academic Merit Diploma

REFERENCES

Manuela Veloso
Machine Learning Department
School of Computer Science
Carnegie Mellon University
mmv@cs.cmu.edu

Vincent Rabaud
Google Inc., Senior Software Engineer
OpenCV Foundation, Co-founder
vincent.rabaud@gmail.com

05.21.2018

EXPERIENCE

RoboCup   2018
RoboCup@Home   Montréal, Canada
  • Leading the Computer Vision tasks of MBot at the SocRob@Home team.

Carnegie Mellon University   2017
Machine Learning, Student Internship   Pittsburgh, PA, USA
  • Designed and implemented a system for a robot to classify and proactively learn new objects by asking for help from humans. Advised by Manuela Veloso.

OpenCV - Google Summer of Code   2016 and 2017 (twice)
Open source, Advised by Vincent Rabaud
Added to OpenCV (Computer Vision library):
  • Tools for multi-language tutorials (web development);
  • Python and Java code tests;
  • Function/method prototypes for the Python bindings;
  • 20 updated tutorials (in C++, Java and Python).

PROJECTS

OpenLabeling Individual Project
An open source image labeling tool.
Currently has 198 stars and 36 forks on GitHub.

mAP Individual Project
An open source tool to evaluate the performance of your neural net for object detection given the mAP (mean Average Precision) score.
Currently has 92 stars and 25 forks on GitHub.

PUBLICATIONS

Robust Object Recognition Through Symbiotic Deep Learning In Mobile Robots
J. Cartucho, R. Ventura, M. Veloso. Submitted to IROS 2018.

Towards a Robust Interactive and Learning Social Robot
M. Jong, K. Zhang, T. Rhodes, A. Roth, R. Schmucker, C. Zhou, S. Ferreira, J. Cartucho, M. Veloso. Accepted to AAMAS 2018.

VOLUNTEERING

StackOverflow Helped over 300,000 people.

Youth Exchanges in Italy, Turkey, Greece, Romania, Finland.