João Cartucho

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 github.com/Cartucho
in linkedin.com/in/cartucho

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

EXPERIENCE

RoboCup   2018
RoboCup@Home   Montréal, Canada
- Part of the SocRob@Home team which implemented a robotic platform for future personal domestic applications.

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
Open source image labeling tool, Individual Project
Currently has 170 stars and 26 forks on GitHub.

Drone Pose Estimation
Course: Autonomous Systems | Grade 0-20 : 19 (best in class)
Image based real-time pose estimation (position + orientation).

Fingerprint Badging System Course: Project & Lab on Communication Systems | Grade 0-30 : 30L (maximum)
Designed and implemented a badging system device.

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 250,000 people.

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