

João 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

04.09.2018

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

Drone Localization

Course: Autonomous Systems | Grade 0-20 : 19 (best in class)

Real-time pose estimation (position + orientation) of a drone using data from aerial images.

Fingerprint Badging System

Course: Project & Lab on

Communication Systems | Grade 0-30 : 30L (max)

A badging system device that allows companies to manage level of access, time and attendance tracking.

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, Portugal, Turkey, Greece, Romania, Netherlands, Finland.