

PROFILE

Davide Aloisi, born in Rome on 03/06/1995, winner of various national and international contests in the world of robotics and information technology (such as the world championship held in Brazil in 2014).

Currently student at the University of Rome "La Sapienza" in master of Artificial Intelligence and Robotics.

EXPERIENCES

•Robotics Team 2012 / 2014

My task was to develop software for the robots, taking care of management of various sensors, motors and above all strategies.

•Romecup 2013 Winner (Robotics Team)

Robotics competitions nationwide.

•Austrian Open 2013 winner (Robotics team)

Robotics competition at European level.

•In the top 8 in the robotics world championship (Robocup) at Eindhoven 2013 (Robotics team)

Robotics competition nationwide.

•Romecup 2014 winner (Robotics team)

Robotics competition nationwide.

•Austrian Open 2014 Winner (Robotics Team)

Robotics competition at European level.

•3rd place Space Apps Rome 2014

Hackathon sponsored by NASA in which a prototype of rover robot capable of exploring hostile environments has been created.

•Robotics World Winner (Robocup) at Joao Pessoa 2014 (Robotics Team)

Robotics competition worldwide.

•High school term project: Realization of an open source phone with Arduino

•Start of working activity at Fondazione Mondo Digitale (2015 - in progress)

The tasks that I carry out within the foundation are:

-Teaching activities in the field of robotics for people from 5 to 40 years;

- Responsible for the maintenance of the 5 laboratories both at software and hardware level;

• **2nd place Space Apps Rome 2015**

Hackathon sponsored by NASA in which a modular system prototype capable of moving through space has been created.

• **Global Junior Challenge 2015 winner**

International competition on the innovative use of technologies, won with the ardufonino project, or an inexpensive phone made with arduino capable of calling, receiving calls, sending and receiving sms.

• **4th place Space Apps Rome 2016**

Hackathon sponsored by NASA in which a prototype of a robot capable of drilling the ground and analyzing the various samples collected was created.

• **Robotics coach at the innovation gym 2016**

Course held by me, where I taught 10 kids how to make a robot line follower with the lego mindstorm kit, who finished first and third at Romecup Junior.

• **Head of the Educational Robotics course at Cavalsassi Foundation 2017**

Responsible for creating a 3/4 month course for elementary school children, where the main objectives were to use robotics in subjects such as Italian, English, mathematics, etc ...

• **Robotics coach at the innovation gym 2017**

Course held by me, where I taught 15 kids how to make a robot line follower with the lego mindstorm kit, who ranked second and third at Romecup Junior.

• **Hackathon Big Smart Hack Rome 2017 winner**

Hackathon sponsored by Maker Faire Rome, where, in the category of projects for the Olivetti company, I developed together with two other guys an algorithm able to understand if it was possible to grow a certain vegetable / fruit in a soil by acquiring data from a station weather (of Olivetti).

• **Thesis project in Computer and System Engineering: Realization of the Robot Hart for the BPS company (2018)**

Hart is a robot capable of interpreting musical notes from an electronic instrument and of painting on canvas based on Jackson Pollock's "Dripping" technique.

• **Bayesian filter for checking android malware (2018)**

Project realized for the Machine Learning course.

• **Neural network for recognition of boats in Venice (2018)**

Project realized for the Machine Learning course.

• **Runner style game in WebGL (2019)**

Project created for the Interactive Graphics course.

• **CycleGan for learning the artistic styles of famous painters (2019)**

Project created for the Vision & Perception course.

•**Augmented reality for the DaVinci robot simulator used in the medical field (2019)**

Project created for the Medical Robotics course.

•**Application and study of the GAIL algorithm for a 2D environment of the OpenAi Gym library (2020)**

Project created for the Reinforcement Learning course.

•**Drone Fault Detection system (2020)**

Project created for the Elective Robotics course.

EDUCATION

ITIS Galileo Galilei Rome - Diploma of industrial technical institute 2014, Electronics and Telecommunications address vote 85/100.

University of Rome "La Sapienza" - Computer and System Engineering 2014/2015 - 2017/2018: vote 92/110.

University of Rome "La Sapienza" - Master in Artificial Intelligence and Robotics 2017/2018 - in progress.

COMPETENZE E CONOSCENZE

- Python (good)
- Scala (university level)
- C++ (university level)
- C# used with Unity3D for "Quitrax" e "Find Frank" (Android games)
- Java (university level)
- C(university level)
- Arduino (good)
- V-REP (university level)
- HTML (university level)
- Open CL (university level)
- PDDL (university level)
- Prolog (university level)
- Neural Networks in Tensorflow e Keras

- Design of automatic / robotic systems such as: Hart, soccer / cleaner robots, telephones, etc ...
- Realization of pcb through programs like Eagle
- English level B2
- Used to working in team, honest, sociable and determined.

For further information on my activities you can go to the following site:

<http://www.davidealoisi.it/esperienze/>