Miroljub Mihailovic

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EDUCATION

Università degli Studi di Padova **10 2020 - present**
*M.Sc. ARTIFICIAL INTELLIGENCE AND ROBOTICS - **GPA - 28.519/30*** *Padua, Italy*

Università degli Studi di Padova **10 2017 - 09 2020**
*B.Sc. COMPUTER ENGINEERING - **GPA 26/30*** *Padua, Italy*

MAIN COURSEWORK / SKILLS

- Machine Learning & Artificial Intelligence
- Computer Vision & 3D Data Processing
- Industrial Robotics & Robotics and Control & Control Theory
- Operation Research 1-2
- Intelligent Robotics
- Automata, Languages and Computation
- Fundamental of Electronics & Circuit Theory
- Database & Computer Networks
- Project Management

MAIN PROJECTS / PAPERS / PRIZES

Fly your thesis! ESA **02 2021 - present**

- ERMES (Experimental Rendezvous in Microgravity Environment Study) project is concerned with the design and development of a test for an autonomous docking manoeuvre between CubeSats mock-ups to be performed on a parabolic flight in order to take advantage of a reduced- gravity environment.
  Supervision: ESA (European Space Agency), DII (Department of Industrial Engineering).

72nd International Astronautical Congress (Dubai, UAE) **2021**

- Experimental Rendezvous in Microgravity Environment Study (ERMES).
- Download Paper

Final Master thesis project **10 2021 - present**

- This thesis illustrates and estimates an approach that is based on policies that permit to navigate in unknown indoor environments with the ability to avoid collisions. The aim consists of supplementing current system of shared intelligence controlled by Brain-Computer Interface (BCI) based on numerous pre-defined policies with a new technique based on Reinforcement Learning (RL) in such a way to give greater autonomy to the robot. With this kind of implementations, an agent learns to solve a task by trial and error interaction with the surrounding environment.

Solutions for TSP (Traveling Salesman Problem) **03 2021 - 08 2021**

- Small thesis about different algortihm for solving the Traveling Salesman Problem.

Second place NASA Hackathon Space Apps challenge (Prize €1000) **10 2018**

- System for astronaut localization using triangulation of signals.

INTERNSHIP / WORK EXPERIENCE

Università degli Studi di Padova - DEI - IAS LAB **10 2021 - 07 2022**
Research Training *Padua, Italy*

- Research training on **reinforcement learning** methods.

Nordest Technology **04 2022 - present**
Software Developer *Vicenza, Italy*

- Software developer for automatic fraud detection through **machine learning** implementations.

TECHNICAL SKILLS

Languages: Python, C, C++, Java, Matlab, PHP, SQL, XML
Tools/Libraries: ROS, TensorFlow, Scikit-learn, Keras, OpenCV, OpenAI, Open3D, PyTorch, Eigen, Pandas, CPLEX
Technologies: Linux, Windows, GitHub, Git, Arduino, Raspberry

LANGUAGES

ITALIAN: Native language
ENGLISH: English B2 - Speaking, English B2 - Reading and Listening
SERBO-CROATIAN: Native language

EXTRACURRICULAR

Didactic support for high school students in the following subjects: Physics, Mathematics and Computer Science, 2018 - Current.

SOFT SKILLS

Self-motivated, Professionalism, Teamwork, Time-management, Humour, Goal setting, Self-starter, Planning, Collaboration, Cooperation, Coordination

PERSONAL INTEREST

Reading, Chess, Hackathon competitions, Sport: bodybuilding, running and competitive football (2008-2018).