

Manuel Del Verme

EDUCATION

University La Sapienza of Rome, Rome, Italy

- MSc in Engineering in Artificial intelligence and Robotics (AI Path). Sep 2016 – Aug 2018 (exp.)

Polytechnic University of Turin, Turin, Italy

- BSc in Computer Engineering and partial in Biomedical engineering. Sep 2011 – Jul 2016

RESEARCH EXPERIENCE

University La Sapienza of Rome

- Research Grant, Consiglio Nazionale delle Ricerche Dec 2017 – May 2018
 - Project: Intrinsic motivation to generate re-usable options.
 - Supervisors: Prof.A.Barto (Umass), Prof.B.Castro da Silva, Dr.G.Baldassarre(ISTC @ CNR).
 - Keywords: **Option learning, intrinsic motivation, hierarchical reinforcement learning.**
- Student Research, Consiglio Nazionale delle Ricerche May 2017 – Dec 2017
 - Project: Imagination-based exploration for on-policy algorithms.
 - Supervisor: Dr.G.Baldassarre (ISTC @ CNR).
 - Keywords: **Model assisted reinforcement learning, Proximal Policy Optimization.**

Polytechnic University of Turin

- Undergraduate Research, DAUIN, Visualization and Computer Graphics Lab Apr 2013 – Dec 2013
 - Project: Intent detection from EEG signal.
 - Supervisor: Prof.F.Lamberti.
 - Keywords: **Signal Analysis, Rehabilitation, Disabled care.**
- Undergraduate Research, DAUIN, Robotics team "Isaac" Polito Oct 2011 – Sep 2016
 - Project: Alternative communication system based on Brain-Computer Interface (BCI) and robotics, aimed to allow for freedom of virtual movement in absence of muscular control. During my tenure, this project was showcased in Milan Robotic Expo 2012, Turin 2013, Rome 2014, Turin 2015. (Team Founder and lead up to 2015).
 - Supervisor: Dott.W.Liboni (Head physician of Neurology) Prof.G.Menga (POLITO).
 - Keywords: **BCI, P300, Motor imagery, Stepwise Linear Discriminant Analysis.**
 - Project: Joint team of Polito, Telecom Italia and Fiat Chrysler Automobiles for the Amazon Picking Challenge competition (now amazon robotics challenge), Team leader.
 - Supervisors: A.Cocchi (FCA, COMAU), M.Gaspardone (Telecom Italia, JOL), Prof.M.Ghirardi (DAUIN).
 - Keywords: **Template matching, Optical flow, Image classification, Deep learning.**
 - Project: Developed simultaneous localization and mapping for wheeled and humanoid robots based on graph SLAM with laser sensors.
 - Supervisors: Prof.M.Ghirardi (DAUIN), Prof.Menga (DAUIN).
 - Keywords: **Graph SLAM, Laser sensors, Depth sensors.**
- Bioinformatics intern/Volunteering, Rehabilitation center "Un passo insieme". May 2013 – Aug 2013
 - Project: Programmed VR systems for neurophysical rehabilitation, design of algorithms to discriminate between benign and malign diseases from fMRI data.
 - Supervisors: Dott.W.Liboni.
 - Keywords: **Signal Analysis, VR, assistive technologies.**

CONFERENCES

S. Totaro, M. Del Verme, G. Baldassarre, Imagination-based exploration for on-policy algorithms in *Applied Machine Learning Days*, EPFL, Lausanne, Switzerland and IMOL 2017, Rome Jan 2018.

WORK EXPERIENCE	fluentify.com , Turin, Italy <ul style="list-style-type: none"> ▪ Senior Developer, Computer Engineer <ul style="list-style-type: none"> • Full stack development. • Search optimization. • Machine learning from optimal product placement and user profiling. 	Apr 2014 – Oct 2015
	Axot Consulting , Forli, Italy <ul style="list-style-type: none"> ▪ Junior Developer, Software Developer. <ul style="list-style-type: none"> • Digital marketing tracking • Development of Axot's CMS 	Jul 2010 – Oct 2010
AWARDS AND SCHOLARSHIPS	Global AI Hackathon 2017 , Rome, Italy <ul style="list-style-type: none"> ▪ My team and I were awarded: <ul style="list-style-type: none"> • First place (from the jury). • Community award (from our peers). • Business award (from the LUISS-ENLABS accelerator). ▪ Best developer award. Piedmont Academic Merit Scholarship , <ul style="list-style-type: none"> ▪ For every year of my Computer Engineering degree. Lazio Academic Merit Scholarship , <ul style="list-style-type: none"> ▪ For every year of my AI and Robotics engineering degree. LUISS-ENLABS artificial intelligence incubation program , <ul style="list-style-type: none"> ▪ Advisor for the Gaia startup which was recently admitted for the 2018 startup batch. 	
ONGOING PROJECTS	Learning to play Hearthstone with reinforcement learning <ul style="list-style-type: none"> ▪ Achieve human-level performance in online multiplayer games. ▪ Keywords: POMDP, adversarial, MCST, hierarchical RL Cryptocurrency trading with reinforcement learning <ul style="list-style-type: none"> ▪ Learning the best policy for algorithmic trading on cryptocurrencies. ▪ Keywords: High-frequency trading, Bitcoin, Ethereum, CNN, DQN Autonomous farming <ul style="list-style-type: none"> ▪ Real-time crop row detection to track field geometry. ▪ Keywords: Computer Vision, Optical flow, Robotics, ROS 	
LANGUAGES	<ul style="list-style-type: none"> ▪ English: Fluent. ▪ Italian: Native. 	
SKILLS	Python (expert), PyTorch (expert), Tensorflow (excellent), C++ (excellent), Javascript (excellent), PHP (excellent), Java (proficient)	
INTERESTS	Disabled care, Teaching, Cycling.	