

Edoardo Maria Tronci

EDUCATION

- 2018 - ongoing **PhD Program in Operations Research**, Sapienza University of Rome - Department of Computer, Control and Management Engineering Antonio Ruberti (DIAG)
Research Topic: Negative Curvature Directions applied to Deep Neural Network's Training
Advisors: Prof. Stefano Lucidi, Prof. Alberto De Santis
- 2016 - 2018 **Master's Degree in Management Engineering**, Sapienza University of Rome
Thesis: Optimization Methods for Machine Learning to Predict Traffic Overload of Delivery Nodes in Content Delivery Networks
Advisor: Prof. Alberto De Santis
Grade: 110/110 cum laude
Graduation date: 30/10/2018
- Jan - Jun 2018 **Erasmus+ Program**, University of Namur, Namur (Belgium)
- 2013 - 2016 **Bachelor's Degree in Management Engineering**, Sapienza University of Rome
Thesis: Product Improvement Through Life Cycle Cost Analysis
Advisor: Francesco Costantino
Grade: 98 /110
Graduation date: 19/10/2016
- 2008 - 2013 **High School Diploma in Classical Studies**, Augusto High School of Rome
Grade: 78/100

TEACHING EXPERIENCES

- Oct 2019 - Feb 2020 **Teaching Assistant for the Operations Research Course**, Sapienza University of Rome, Department of Mechanical and Aerospace Engineering (DIMA)
- Oct - Dec 2019 **Teaching Assistant for the Operations Research Laboratory Course**, Sapienza University of Rome, Department of Mechanical and Aerospace Engineering (DIMA)
- Oct 2020 - Feb 2021 **Teaching Assistant for the Optimization Methods for Machine Learning Course**, Department of Computer, Control and Management Engineering Antonio Ruberti (DIAG)
- Nov 2020 - Oct 2021 **Tutor A for the Operations Research Course**, Department of Computer, Control and Management Engineering Antonio Ruberti (DIAG)

WORK EXPERIENCES

- Dec 2019 - Sep 2020 **Technical Support for Data Quality for Research and Higher Education Studies Methodological Course**, Sapienza University of Rome, Department of Computer, Control and Management Engineering Antonio Ruberti (DIAG)
- Sep 02 - 05, 2019 **Organizing Committee Assistant for ISSI 2019 - 17th International Conference on Scientometrics & Informetrics**, Rome (Italy)
- June - Oct 2018 **Junior Consulting**, Consel – ELIS Consortium, Rome (Italy)
Activity: Predictive Analysis on Traffic Overload of Delivery Nodes in Content Delivery Networks Using Machine Learning Techniques
- Aug - Sep 2016 **University Traineeship**, Liu Linkoping University, Linkoping (Sweden)
Activity: Research on Life Cycle Costing and Forecasting for Bachelor Thesis

OTHER EXPERIENCES

- 2016 - 2019 **Private Teacher of Mathematical Analysis and Statistics for undergraduate students**, Rome (Italy)
- 2013 - 2016 **Private Teacher of Scientific and Classical Subjects for high school students**, Rome (Italy)
- Apr 05 - 12, 2013 **High School Traineeship, International Model United Nations Association (IMUNA)**, St. Louis (USA)

SCHOLARSHIPS

- 2018 – ongoing **PhD Program Scholarship for PhD in Automatics, Bioengineering and Operations Research (ABRO)**, Sapienza University of Rome
- Jan - Jun 2018 **Erasmus+ Program Scholarship**, University of Namur, Namur (Belgium)

QUALIFICATIONS

- Apr 2021 **LongoMatch Professional Certificate of Appreciation**, LongoMatch
- Mar 2021 **Football Match Analyst - LongoMatch Certification Level 3 - Professional**, Soccer University ELITE FOOTBALL CENTER
- Mar 2021 **Pro Membership Card of AIAPC (Italian Association of Performance Analysts of Soccer)**, AssoAnalisti AIAPC
- Jul 2020 **State Exam for Information Engineer** (Italian Legislation), Sapienza University of Rome

COMPUTER SKILLS

Good knowledge of: Python, Pytorch, Jupyter, Tensorflow, Github, Office Suite, Latex

Knowledge of: AMPL, CPLEX, Gurobi, Pyomo, Fortran, MATLAB, Spark, R

LANGUAGES

Italian (Native)

English (B2, IELTS exam: 6.0)

Spanish (Basic User)

CONFERENCES

Feb 24 - 26, 2020 **Games, Dynamics and Optimization (GDO2020)**, Rome (Italy)

Sep 02 - 05, 2019 **ISSI 2019 - 17th International Conference on Scientometrics & Informetrics**, Rome (Italy)

SUMMER SCHOOLS AND WORKSHOPS

Feb 05 - 07, 2020 **4th AIROYoung Workshop on New Advances in Optimization, Machine Learning and Data Science**, Bozen (Italy)

Jun 30 - Jul 6, 2019 **OBA Summer School on Optimization, Big Data and Applications**, Veroli (Italy)

Jun 25 - 28, 2019 **1st MINOA PhD Summer School on Mixed-Integer Nonlinear Optimization Meets Data Science**, Ischia (Italy)

Mar 26 - 29, 2019 **3rd AIROYoung Workshop + PhD School on Advanced Methods in Optimization and Data Science**, Rome (Italy)

RESEARCH INTERESTS

My research is mainly focused on the design and implementation of algorithms for solving large-scale nonlinear optimization problems, which can be used to solve challenging problems arising in Machine Learning applications. Specifically, I am interested in exploiting second order information by following negative curvature directions for training Deep Neural Networks, a tough large-scale and nonconvex optimization problem.

PERSONAL INTERESTS

I am a dynamic guy who is always curious about studying new things, with a strong interest in engineering applications and a great attention to details. I am a motivated full of enthusiasm hard-worker, always looking for new challenging environments where I can learn something new and test myself. My hobbies are playing cycling, reading, playing the guitar and ukulele, watching movies and documentaries and following the latest news about technology. I have been playing football at competitive levels for many years.

LIST OF RESEARCH PAPERS

Published:

- Seccia R., Boresta M., Fusco F., Tronci E., et al. **Data of patients undergoing rehabilitation programs**. Data In Brief, Springer. DOI: 10.1016/j.dib.2020.105419

Date: 07/06/2021

