

PERSONAL PROFILE

Machine Learning enthusiast. Main interest lies in the intersection of statistics and probability theory with machine learning. Keen on learning state-of-the-art research and applying it to solve real-world problems.

EDUCATION

The University of Edinburgh

MSc Artificial Intelligence (1st Class Hons.)

Edinburgh, UK

Sept 2017 – Aug 2018

Courses

- Machine Learning & Pattern Recognition
- Machine Learning Practical
- Probabilistic Modeling & Reasoning
- Reinforcement Learning
- Algorithmic Game Theory
- Data Mining & Exploration

MSc Project(Amazon UK)

Bayesian Machine Learning for online advertising applications. ([code](#))

University of Naples Federico II

MSc Management Engineering (1st Class Hons.)

Naples, IT

Sept 2012 – April 2015

MSc Project (Grimaldi Group)

A statistical approach to ship fuel consumption monitoring and control.

University of Naples Federico II

BSc Logistics and Production Engineering (1st Class Hons.)

Naples, IT

Sept 2009 – Sept 2012

EXPERIENCE

Amazon Development Centre

MSc Artificial Intelligence summer project

Edinburgh, UK

June 2018 – Aug 2018

Project Description

Worked on Deep Bayesian Bandits models and Thompson Sampling Exploration for online advertising applications. Developed a framework in PyTorch where several Bayesian Machine Learning algorithms were tested for improving the expected revenue from clicks received.

Grimaldi Group

Data Scientist

Naples, IT

Nov 2014 – Sept 2017

Job Description

Responsible for the energy consumption modeling and optimization for a fleet of 100+ vessels. Combined physics with Machine Learning and Statistical modeling (PCA, PCR, PLS regression). Used statistical control chart techniques (CUSUM control chart) to monitor the performance of the models over time.

Grimaldi Group

Data Analyst

London, UK

June 2015 - Aug 2015

Job Description

Implemented, with the R programming language, the statistical models developed during my thesis project, providing the UK operations department with daily monitoring tools and KPIs.

PROJECTS

Generate art using Generative Adversarial Networks (GANs) ([demo](#))

Teaching machines to generate art and celebrity faces conditioned on specific attributes, such as emotions, with GANs, implemented in TensorFlow. The project was awarded 2nd best from IBM UK out of 124 group projects from The University of Edinburgh Machine Learning Practical course.

Inferring skills of GO players

Inferring skills of GO players using probabilistic inference and graphical models.

Automatic playlists continuation

Predicting the next songs in a playlist (Spotify Challenge); Tools used: *Collaborative Filtering, SVD, RNNs, Theano, word2vec, t-SNE*.

Ethnicity Classification ([code](#))

Ethnicity classification from social network images. Tools used: *OpenCV, Keras, CNNs, VGG-16. Transfer Learning*.

SKILLS

Python, R, PyTorch, Keras, Tensorflow, Java, Matlab, Git, Unix.

PUBLICATIONS AND AWARDS

Conferences

- Speaker at Green Ship Technology, Copenhagen, DK (2016) - Managing Big Data for effective ship performance monitoring
- Speaker at Italian Statistical Society, Scientific Meeting, Salerno, IT (2016)

Publications

- Ship fuel consumption control and engineering approach to fault-detection - 6 Sept 2016 - University of Salerno, Salerno, Italy, 48th Scientific Meeting of the Italian Statistical Society

Awards

- IBM UK award for best Machine Learning Practical project, 2nd place (April 2018)
- 3rd place in the European BEST Engineering Competition E.B.E.C. (March 2015)

EXTRACURRICULAR ACTIVITIES

Courses and Certifications

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|---------------------------------------------------------|-------------------------------------------------------|
| – Machine Learning (Stanford University) | – R programming (John Hopkins University) |
| – Data Science Specialization (John Hopkins University) | – The Data Scientist Toolbox (Santa Fe Institute) |
| – Introduction to Complexity (Santa Fe Institute) | – Getting and Cleaning Data (John Hopkins University) |

Volunteering

Occasional lectures for the ST foundation - IT and Numeracy children education.

Hobbies and Interests

Climbing/Trekking/Hiking - current member of the Vertical Direction climbing society; Football - played 10+ years at competitive level; Kayak - weekly trips with the Kayak Napoli Club Society; Athletics - member of the Athletics school team; Winter sports - Skiing; Keen to travel and hang out at social and cultural events to meet people with different cultures and ideas.