

Andrea Cortoni

Software Engineer - Machine Learning

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ABOUT ME

- Currently working as a Software Engineer developing software to diagnose rare diseases.
- Deep interest in the application of Machine Learning into Natural Language and Machine Vision.
- Creative and innovative with continuous aim to surpass set objectives.

PROFESSIONAL SKILLS

Technical Skills: Python, Javascript, Scala, Java, Docker, SQL (Postgres), NoSQL (MongoDB).

Machine Learning: Tensorflow/Keras, PyTorch, Sci-Kit Learn, Pandas, Numpy, NLTK, OpenCV, AllenNLP.

Web Development: **Frontend:** React, **Backend:** Node/Express, Flask, Django.

Languages: Mother Tongue: Italian, Fluent in English, Beginner level in Chinese and Dutch

WORK EXPERIENCE

Software Engineer - Machine Learning, DIPLOID, Leuven, Belgium

Sept 2019-Current

- Programming languages and technologies: Python, Javascript, RubyOnRails
Deep Learning, Tensorflow.
- Machine Learning Algorithms patient diagnosis enhancement
- Automated Machine Learning
- Data Mining

Software Engineering Intern, TESLA, Tilburg, Netherlands

Sept 2018-
March 2019

- Programming languages and technologies: Python, React, Django, Keras/
Tensorflow, Scikit-Learn, MongoDB.
- Worked on a range of projects dealing with anomaly detection processes as well as the development of analytics platforms.
- Projects included:
 - Full Stack development
 - Machine Learning services for anomaly detection

Software Engineering Intern, IBM, Brussels, Belgium

July-Sept 2018

- Programming languages and technologies: Python, Flask, Natural Language Toolkit, SVMs, Naive Bayes, RNN.
- Applied Natural Language Understanding techniques as well as built RESTful APIs to automate different processes in human resources.

Embedded Software Development Intern, ISMB, Turin, Italy

March-June 2017

- Programming languages and technologies: C/C++
- Worked in a team developing technologies for IoT

PROJECTS AND COMPETITIONS

Reconstruction from Multimodal representations

Sept 2019 -
Ongoing

- Programming languages and technologies: Python, Tensorflow, AllenNLP, GANs, Residual CNN, BERT, VisualBERT, Word2Vec, Image Reconstruction.
- Master thesis work aimed on using multiple modalities in image generation
- Reconstruct complex scenes given a caption, do so by making use of multimodal representations.

Deep Reinforcement learning for Multi Agent systems

February-April
2019

- Programming languages and technologies: Python, Tensorflow, openCV, Reinforcement Learning, Residual CNN, MAS Coordination.
- Developed Deep RL algorithm for a multi agent Pursuer/Evader setting.

Viw

November-
December 2018

- Programming languages and technologies: Scala
- Developed a plugin for Atom (text editor) integrating Vi(m) like editing commands.

Dots and Boxes

March-June 2018

- Programming languages and technologies: Python, TensorFlow, Deep Learning
- Designed and implemented DQN algorithm for self play learning of game Dots and Boxes

Google Hash Code (KU Leuven hub)

April 2018

- Programming language and technologies: Python
- Built an algorithm for scheduling system for a fleet of self-driving vehicles, assigning the rides to vehicles, so that riders get to their destinations on time.

EDUCATION

Master of Science in Computer Science, Specialization in AI

2017-2020

Leuven, Belgium
KU Leuven

Bachelor of Science in Electronic Engineering

2014-2017

Turin, Italy
Polytechnic of Turin

Bachelor of Science in Information Technology Engineering

2015-2016

Shanghai, China
Tongji University

EXTRA ACADEMIC ACTIVITIES

PEG

- Participated for two consecutive years to the PEG (Parlamento Europeo Giovanile / European Youth Parliament) project. The project consisted into the simulation of a European Parliament meeting. During the event itself, small delegation of selected students were asked to debate about a certain topic/problem, trying to find a plausible solution for it by presenting real data and facts to support our thesis.