Luca Angioloni

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EDUCATION

UNIVERSITY OF FLORENCE
PhD in Smart Computing
From Nov 2019 | Florence, Italy
College of Engineering

UNIVERSITY OF FLORENCE
MEng in Computer Engineering
Apr 2019 | Florence, Italy
College of Engineering
Vote: 110/110
Magna Cum Laude

UNIVERSITY OF FLORENCE
BS in Computer Engineering
Nov 2016 | Florence, Italy
College of Engineering
Vote: 102/110

LINKS

Github:// LucaAngioloni
LinkedIn:// Luca Angioloni
Web Site: lucaangioloni.github.io

COURSEWORK

GRADUATE
Machine Learning
Image and Video Analysis
Image Processing and Security
Statistical Signal Elaboration
Parallel Computing
Advanced Numerical Analysis
Others ...

SKILLS

PROGRAMMING
Proficient
C/C++ • Python • MATLAB • Java
Javascript • SQL • PHP • LaTeX
Familiar:
iOS • Android • Swift

AWARDS

2018 | Florence, Italy
Awarded 1st in the SSE Challenge
Engineering for Industry 4.0

EXPERIENCE

ARCAMEMORIE
2018 | Florence, Italy
Software Engineer

RESEARCH

UNIVERSITY OF FLORENCE | Researcher
May 2019 – Oct 2019 | Florence, Italy
I collaborate with Prof. Paolo Frasconi and Dr. Valentijn Borghuis in the design, training, and evaluation of innovative **generative models** and algorithms to generate music genre interpolations and other forms of **autonomous music production**. The goal of this research project is the application of **Wasserstein autoencoders** to the generation of MIDI musical patterns starting from proprietary data made available by the contractor Borgflocken B.V.

NORTHEASTERN UNIVERSITY - SPIRAL LAB | Researcher
Sep 2018 – Jan 2019 | Boston, MA
Worked with **Machine Learning** and **Signal Processing** on a **DARPA** project called **RFMLS** (Radio Frequency Machine Learning System), in order to identify wireless devices based only on raw RF transmissions with thousands of devices. Designed the **Neural Network Architecture** used for the identification task and helped develop the signal processing system needed to **extract the right features**.

UNIVERSITY OF FLORENCE | Researcher (Research Scholarship)
Jul 2017 – Mar 2018 | Florence, Italy
Worked on the "Development of **compression and denoising algorithms** for images from AS-OCT" project, financed by C.S.O. S.r.l. Designed a **custom and efficient** compression and denoising algorithm specifically for AS-OCT images and implemented it (**C++ No Libraries**)

MAGENTA S.R.L. | Researcher
Jan - Mar 2014 | Florence, Italy
*Creation and analysis of **Map - Reduce** functions for Non Relational Databases (**NoSQL**) (Public traffic database of the city of Florence)*

PUBLICATIONS

[1] L. Angioloni, T. Borghuis, L. Brusci, and P. Frasconi. Conlon: A pseudo-song generator based on a new pianoroll, wasserstein autoencoders, and optimal interpolations. In *Proceedings of the 21st International Society for Music Information Retrieval Conference*, pages 876–883. ISMIR, 2020.

[2] F. Restuccia, S. D'Oro, A. Al-Shawabka, M. Belgiovine, L. Angioloni, S. Ioannidis, K. Chowdhury, and T. Melodia. Deepradioid: Real-time channel-resilient optimization of deep learning-based radio fingerprinting algorithms. In *Proceedings of the Twentieth ACM International Symposium on Mobile Ad Hoc Networking and Computing*, pages 51–60. ACM, 2019.

[3] K. Sankhe, M. Belgiovine, F. Zhou, L. Angioloni, F. Restuccia, S. D'Oro, T. Melodia, S. Ioannidis, and K. Chowdhury. No radio left behind: Radio fingerprinting through deep learning of physical-layer hardware impairments. *IEEE Transactions on Cognitive Communications and Networking*, 2019.

PROJECTS

ProteinSecondaryStructure-CNN | Machine Learning
2018 | Open source Project
Protein Secondary Structure predictor using CNNs (Sequence to sequence).
Github:// ProteinSecondaryStructure-CNN

Many Others... (See GitHub)