Luca Angioloni

lucaangioloni.github.io| GitHub/LucaAngioloni
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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**

SKILLS

PROGRAMMING
Python • Javascript • C/C++ • Rust
Java • SQL • PHP • MATLAB • LaTeX

PROJECTS

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

EXPERIENCE

RESEARCH SCHOLARSHIP
2018 | University of Florence
"Development of **compression and denoising algorithms** for images from AS-OCT". Designed a **custom and efficient** compression and denoising algorithm specifically for AS-OCT images and implemented it.

WORK

SPHERA S.R.L. | CEO & Co-founder
Apr 2022 - now | Florence, Italy
Sphera is a company that offers high-tech, disruptive software products, integrated with AI and BI. The main product is a modular software suite to manage businesses, workflows and Industry 4.0. I manage the company and I supervise the development of the products making strategic decisions and tracing the growing direction of the company.

AIDIA S.R.L. | CTO & Co-founder
Jun 2020 - now | Florence, Italy
I design and supervise the development of the technological solutions the company offers, selecting the right tools, frameworks and methods and managing the development engineering team. The fields of application include: AI and ML, Microservices architecture and platforms, Big Data.
My responsibilities and duties are: Company Management, Project management, Technological and Strategical decision making and Team building.

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**.

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.