Marco Parola

Ph.D. candidate

MLPI member

Last update: December 15, 2023

Up-to-date version of CV is available at
https://MarcoParola.github.io/cv

Linkedin	
Telegram	
GitHub	
Stack Overflow	
ORCID	
ResearchGate	
Email	

Ph.D. student enrolled in the Information Engineering course at the University of Pisa (Italy). Specialised in advanced deep learning architectures, computer vision and explainable artificial intelligence. I am enthusiastic about open source and open data principles, actively participate in the Stack Overflow community and contribute to GitHub projects. Full stack development skills on main deployment platforms developed during experiences in the enterprise environment.

Education

01/11/2022 - present

Ph.D.

Ph.D. in Information Engineering enrolled in the XXXVIII cycle of the PhD in Information Engineering at University of Pisa. (in progress)

15/10/2019 - 18/02/2022

Master degree

Master degree in Artificial Intelligence and Data Engineering at University of Pisa. Mark: 110/110

08/11/2015 - 14/10/2019

Bachelor degree

Bachelor degree in Computer Engineering at University of Pisa. Mark: 97/110

Python	DL	OpenCV	XAI	ML	JS				
C/C++	C#	Java	Data	Linux	Git				
Backend	Frontend	Web							

Professional Experience

01/01/2024 - 31/08/2024

Visiting Ph.D.

Visiting Ph.D. student at Aalborg University.

Deep Learning | Thermal image | Computer Vision | Conditioning

01/11/2022 - present

Ph.D. candidate

Ph.D. candidate enrolled in Information Engineering phd program at University of Pisa.

Deep Learning | XAI | Medical Imaging | Computer Vision

01/05/2022 - 31/10/2022

Research fellow

Research fellow on "Decision support systems with explainable models for diagnosis and prognosis based on medical images" funded by MUR-PRIN REASONIG 2020 project, supervisors Prof. Gigliola Vaglini and Prof. Mario GCA Cimino; at University of Pisa.

Deep Learning | XAI | Medical Imaging | Computer Vision

15/10/2021 - 30/04/2022

Machine learning engineer

Machine learning engineer at Move Solutions - Move S.r.l., Lucca. Part time. I developed microservices to be integrated into the Move Solutions platform architecture to provide ML analysis on sensor signals.

Python | Flask | MongoDB | Signal processing | Sensors | IoT | microservices | Docker

01/09/2019 - 15/06/2021

Software developer

Software developer at 5Space S.n.c., Livorno. I worked part-time on OptGear project, a web application to perform optimization calculations for mechanical gears, which finds the best combination of gear parameters.

.NET | ASP.NET | MSSQL | C# | web | microservices

30/07/2018 - 31/01/2019

Software developer intern

Software developer at Labortori Archa S.r.l., Pisa. Internship. Implementation of LIMS (Laboratory Information Management System) using Microsoft technology stack.

.NET | ASP.NET | MSSQL | C# | web

Publications

Conf
2023
Parola, M., La Mantia, G., Galatolo, F., Cimino, M.G., Campisi, G., Di Fede, O., 2023. **Image-based screening of oral cancer via deep ensemble architecture**, in: 2023 IEEE Symposium Series on Computational Intelligence (SSCI), IEEE. pages 1572–1578. doi:10.13140/RG.2.2.24070.34880

Object Detection | Medical Imaging | Deep Leraning | Ensemble Learning | Oral Cancer

Conf
2023
Simionato, G.; **Parola, M.**; and Cimino, M.; (2023). **Impressionist Hole Detection and Healing Using Swarms of Agents with Quantized Perception**. In Proceedings of 2023 IEEE Symposium Series on Computational Intelligence. (2023). pages 1213–1220

Drone | Swarm Intelligence | Hole Detection

Conf
2023
Parola, M.; Dirrhami, H.; Cimino, M. and Squeglia, N. (2023). **Effects of Environmental Conditions on Historic Buildings: Interpretable Versus Accurate Exploratory Data Analysis**. In Proceedings of the 12th International Conference on Data Science, Technology and Applications - DATA; ISBN 978-989-758-664-4; ISSN 2184-285X, SciTePress, pages 429-435. DOI: 10.5220/0012119700003541

Regression | Stuctural Health Monitoring | Deep Leraning | Sensors | Tower of Pisa

Book chap
2022
Parola, M.; Galatolo, F.; Torzoni, M. and Cimino, M. (2022). **Convolutional Neural Networks for Structural Damage Localization on Digital Twins**. In International Conference on Deep Learning Theory and Applications (pp. 78-97). Cham: Springer Nature Switzerland.

Stuctural Health Monitoring | Deep Leraning | Sensors | Digital Twin

Conf
2022
Cimino, M.; Galatolo, F.; **Parola, M.**; Perilli, N. and Squeglia, N. (2022). **Deep Learning of Structural Changes in Historical Buildings: The Case Study of the Pisa Tower**. In Proceedings of the 14th International Joint Conference on Computational Intelligence (IJCCI 2022) - NCTA; ISBN 978-989-758-611-8; ISSN 2184-3236, SciTePress, pages 396-403. DOI: 10.5220/0011551800003332

Stuctural Health Monitoring | Deep Leraning | Sensors | Tower of Pisa

Conf
2022
Parola, M.; Galatolo, F.; Torzoni, M.; Cimino, M. and Vaglini, G. (2022). **Structural Damage Localization via Deep Learning and IoT Enabled Digital Twin**. In Proceedings of the 3rd International Conference on Deep Learning Theory and Applications - DeLTA; ISBN 978-989-758-584-5; ISSN 2184-9277, SciTePress, pages 199-206. DOI: 10.5220/0011320600003277

Stuctural Health Monitoring | Deep Leraning | Sensors | Digital Twin

Preprint
2021

Parola, M., Nannini, A., and Poleggi, S. (2021). **Web image search engine based on LSH index and CNN Resnet50**. arXiv preprint arXiv:2108.13301.

Information Retrieval | Computer Vision | Deep Leraning