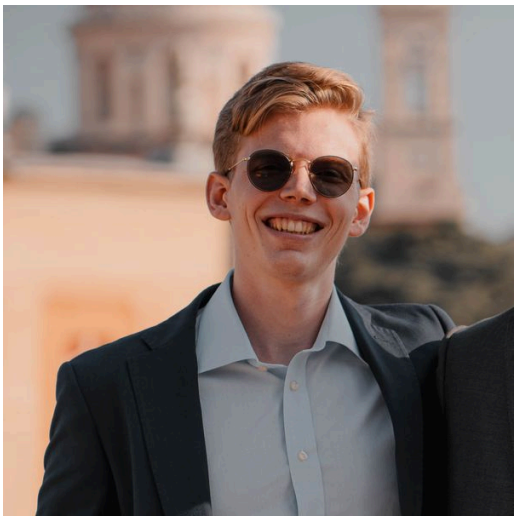

Profiles

Linkedin
LinkedIn

Scholar
Scholar

Medium
Medium

Github
Github

Skills

Python
Senior

◆ ◆ ◆ ◆ ◆

Web Development, Flask, FastAPI, Django, PyQT, AI Frameworks, Dataflow Programming

Machine Learning
Proficient AI Engineer

◆ ◆ ◆ ◆ ◇

Traditional ML, Spatial Segmentation, Graph Neural Networks, Physic informed AI for Simulation, Neural Rendering, Multimodal Embeddings, LLMs and NLP, Computer Vision, Reinforcement Learning for Industrials control loops, Predictive maintenance, Anomaly Detection, Patter recognition, Object Detection

Multi-physics Simulation
CFD and FEA

◆ ◆ ◆ ◆ ◇

CFD, FEA, Analysis of vibrational systems

Developer
Fullstack Dev

◆ ◆ ◆ ◆ ◇

Javascript, NoSQL, SQL, MySQL, PostgreSQL, C++, Matlab, html, css, Python, DevOPS, Azure, Git

Marco Sanguineti

AI Engineer | Senior Python Dev | Mechanical Engineer

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Summary

Experienced AI engineer and proficient developer.

More than 5 years of experience in the development of AI-centric softwares as a fullstack software developer.

3 Years of experience as a Lead AI Engineer / AI Manager in different tech start-ups.

Experience

MYWAI **2023-10-01 - Present**
Lead AI Engineer
https://www.myw.ai/

Led the activities of a team of AI engineers and Python developers.

Development of the entire enterprise algorithmic service and related python backend.

CI/CD with Azure DevOPS and Kubernetes.

Developed, validated and implemented automated tests for more than 20 algorithms (images, time-series, audios... for classification, anomaly detection, pattern recognition and many more) available as products for customers.

Led the development of Deep Learning software and algorithms for industrial applications, for customers and for Italian and European research projects:

- Neural-rendering (Nerf, InstaNerf, NeuralAngelo) for Underwater Equipment as a service
- Multimodal embeddings (ImageBind) for intelligent welding solutions.
- Reinforcement learning and generative AI for laser welding control cycle.
- Use of Segment Anything (Meta) for industrial metrology applications.
- Predictive maintenance for hydraulic and oil pumps.
- And many more

Languages

Italian
Native speaker

◆ ◆ ◆ ◆ ◆

English
Work proficiency

◆ ◆ ◆ ◆ ◇

French
Basic proficiency

◆ ◇ ◇ ◇ ◇

Spanish
Basic proficiency

◆ ◇ ◇ ◇ ◇

Interests

Dogs

Personal Finance

Videogames

Technology

AR/VR

Experience

Deeplabs **2021-04-01 - 2023-09-01**
AI Engineer | Python Dev

Develop from scratch to final testing phase of Deepyt, a dataflow-programming software in Python for no-code, low-code development of AI pipelines for industrial applications. Highly proficient in Python desktop development, based on PyQt.

Development of state-of-the-art algorithms based on generative AI for turbomachinery design without designer intervention (and publications).

Development of DeepytTurbo, a Web application (SaaS) for interactive and simplified customer development of Centrifugal Compressors, training generative AI algorithms on data available to the customer. The software was developed from the ground up to production deployment and resulted in the totally no-code and non-designer-intervention development of compressors built and field-tested.

Numerical **2020-05-01 - 2021-04-01**
Simulation Engineer | Python Developer | AI Engineer
https://www.numerical.it/en/

Project engineer in a cutting-edge company for fluid dynamics, structural simulation and turbo-machinery design. Leaded Python based Software and API development for Turbo-machinery design and optimisation. Successfully performed Computational Fluid Dynamic analysis with Numeca (Cadence) and OpenFoam and Structural Analysis with GMSH and Calculix. I conducted a parallel activity of Research and Development (AI-based turbo-machinery design and optimisation techniques)

ABB **2019-11-01 - 2020-12-01**
Master's Thesis
https://global.abb/group/en

Numerical modeling of HVAC for maritime application: comparison between traditional and machine learning-based approaches. - Support Vector Machines (SVMs) - Neural Networks (ANNs) - Energy system modeling and Simulation

Ruths **2018-09-01 - 2019-04-01**
Project Engineer
http://www.ruths.it/

Design engineer for innovative steam generator cleaning systems (Excel, VBA, Octave, Python).

Education

University of Genoa **2018-09-01 - 2020-12-31**
Master 's Degree Mechanical Engineering - Energy and Aeronautics
110 cum laude with distinction
https://corsi.unige.it/corsi/9270/

Master's thesis on the application of deep learning algorithms for the optimisation of air conditioning systems

University of Genoa **2015-09-01 - 2018-07-31**
Bachelor's degree Mechanical Engineering
110 cum laude
https://corsi.unige.it/corsi/8720

Thesis on the study of the performance of parametric winglets for aircraft wings using CFD analysis.

University of Genoa **2015-01-01 - 2020-12-31**
High school diploma Sustainability studies
https://ianua.unige.it/

A restricted numbered course of excellence parallel to the Master's degree. Additional lectures on environmental and economic sustainability, new technologies, and new materials.

Publications

Advantages of Machine Learning Methods in Aerodynamic Blade Optimization **2023-06-26**
https://asmedigitalcollection.asme.org/GT/proceedings-abstract/GT2023/87110/1168626

Rotor37 Aerodynamic Optimization: A Machine Learning Approach **2022-06-13**
https://asmedigitalcollection.asme.org/GT/proceedings-abstract/GT2022/V10DT34A021/1149434

Centrifugal compressor aero-mechanical design: a machine learning approach **2021-07-06**
https://asmedigitalcollection.asme.org/GT/proceedings-abstract/GT2021/84935/1119846

Variable cant angle winglets for improvement of aircraft flight performance **2020-10-01**
https://link.springer.com/article/10.1007/s11012-020-01230-1

CFD study of the impact of variable cant angle winglets on total drag reduction **2018-12-06**
https://www.mdpi.com/2226-4310/5/4/126