Alessio Martini, Ph.D.

Novi Ligure (AL), Italy • 00393465873974
alessio.martini85@gmail.com

Summary

Senior mechanical engineer with a Ph.D. in Science & Technology for Engineering with 10+ years of hand-on experience in data science projects dealing with data treatment and machine learning algorithms for performance optimization, predictive maintenance and risk monitoring, ranging from power generation to manufacturing, chemicals and constructions. Strategic thinker, supported by deep analytical capabilities, data driven approach and experience working across multiple project timelines with extended cross functional teams. Strong executive presence as well as interpersonal and written communication skills, delivering at the executive level. Innovation Manager for the Italian Ministry of Economic Development and professional engineer registered to the Orders of Engineers of Alessandria district (Italy).

Education

Università degli Studi di Genova (Italy) 2011 - 2014
Ph.D. in Science & Technology for Engineering

Experience

DIDO, Senior Machine Learning Engineer May 2022 - Present

- Define Engineering Platform requirements

ZimmiTech, AI Strategist & Chief Business Analyst Mar 2021 - Oct 2021

- Define B2B Platform requirements along with management
- Bridging the gap between management and development team

AiGlimmer®, CEO & Founder Jan 2020 - Present

Founder and CEO of AiGlimmer®, an innovative startup with the aim to reduce AI project failures allowing people to connect and exchange AI services/products in the fields of education, recruitment, projects management and funding.

IB Influencing Business, Reliability & Machine Learning Engineer Sep 2018 - Dec 2020

- AI for Real-time Risk Management on Top Tier establishments (pending patent)
- AI for Predictive Maintenance on Manufacturing and Chemical processes
- Consultancy on IoT and Industry 4.0 related projects
- Help the company digital transformation
- Help the change management

α μ Engineering Services, Owner & Business Manager Jan 2017 - Present

- Development of a microturbine based tool for thermodynamic performance (Power Gen)
- Root Cause Analysis in time-series dataset (Manufacturing – paper machine)
- Anomaly detection in correlated variables (Manufacturing – paper machine)
- Multivariate time-series clustering and segmentation (Aviation)
- Weak signals and alarms definitions (Chemicals – H2 and CO2 plants)
- Development of a tool for objects detection inside images
- Help companies in the digital transformation

Ansaldo Energia Spa, Postdoctoral Research Fellow Jan 2016 - Dec 2016

- Application of advanced statistical techniques for predictive diagnostics
- Application of both unsupervised (clustering) and supervised (regression) techniques to discover precious knowledge from historical data
- Creation of Early Warning algorithm
- Analysis of many case studies from historical database

Ansaldo Energia Spa, Postdoctoral Research Fellow Jul 2015 - Dec 2015

- Data validation of field measurements
- Application of Data Validation techniques (Data Reconciliation and Gross Error Detection) at field measurements through direct interaction with Ansaldo main database
- Analysis of large data from historical database with comparison among field and validated measurements in order to show the higher quality in the diagnostic activities

Ansaldo Energia Spa, Postdoctoral Research Fellow Jan 2015 - Jun 2015

- Second principle monitoring of combined cycles
- Upgrade of the first GUI (Graphical User Interface) in MATLAB® for both exergetic and thermoeconomic analysis through direct interaction with Ansaldo main database
- Upgrade of the second GUI (Graphical User Interface) in MATLAB® for results visualization and validation
- Analysis of large data from historical database

Ansaldo Energia Spa, Postdoctoral Research Fellow Jan 2014 - Dec 2014

- Second principle monitoring of combined cycles
- Development of a first GUI (Graphical User Interface) in MATLAB® for exergetic analysis through direct interaction with Ansaldo main database
- Development of a second GUI (Graphical User Interface) in
- MATLAB® for results visualization and validation
- Analysis of large data from historical database

N.E.T.L. (National Energy Technology Laboratory), Research Associate Apr 2012 - Aug 2012

- Parallel flow loops analysis in hybrid system fuel cell – micro gas turbine
- Working mainly on parallel flow loops issues and data validation/ fault detection
- Development of dedicated HMIs (Human Machine Interfaces) using NI LabVIEW® for control and monitoring of a hybrid system gas turbine-high temperature fuel cell
- Creation and programming of a GUI using Matlab®/Simulink® for data post processing
- Field experience on writing test plans and carrying out tests
- Training as an operator using Woodward industrial gas turbine controls (MicroNet, GAP)
- Writing SQL Server queries for database exploring

Skills

- Artificial Intelligence for Business (AI for Business) Operations and Management
- Performance optimization, predictive maintenance and risk monitoring
- Digital Twin platforms development
- Data acquisition, pre-processing, cleaning and consolidation
- Anomaly detection and prediction
- Advanced Machine Learning techniques on time series
- MATLAB®, Python, R
- Multidisciplinary engineering mindset
- Curious and continuous learner
- Details obsessed
- Strategic thinker, supported by deep analytical capabilities and data driven approach

- Experience working across multiple project timelines with extended cross functional teams
- Strong executive presence as well as interpersonal and written communication skills, delivering at the executive level