

LUCA DI STASIO

Principal Engineer

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Italian & EU Citizen

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Driving License B (IT)

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PROFILE

Industrial engineer and scientific researcher expert in design and multi-physics modelling, I'm a creative problem-solver and challenge-driven. Experienced in conducting innovative projects from conception to exploitation, both as leader and collaborator.

EMPLOYMENT HISTORY

TOPSOE A/S

Kongens Lyngby, Denmark

Mar 2023 – Present

Principal Engineer, Power-to-X Mechanical Development

- Led development projects on characterization and modeling of mechanical behavior of materials (steels, nickel-alloys, glass-ceramics) at high temperatures
- Directly engaged in the establishment of an integrated experimental-computational modeling program of products and processes
- Developed FE models to support design decisions and driven design choices based on mechanical insights
- Established and managed projects with internal and external collaborators (consultants, service providers, academic researchers)
- Conducted investment analysis to evaluate the acquisition of testing equipment

KAUST

Thuwal, Saudi Arabia

Apr 2020 – Feb 2023

Postdoctoral (Experienced) Researcher

- Led the development of multiple research projects from idea to publication in the field of large deformation elasticity of cracked Neo-Hookean bodies
- Developed automated software pipelines for the semi- and un-supervised generation and analysis of numerical models (mesh generation, CSM/CFD simulation, data analysis)
- Developed routines for the visualization of multi-dimensional data
- Disseminated results through the publication of journal articles
- Presented results at international conferences

UNIVERSITÉ DE LORRAINE

Nancy, France

Sep 2020 – Feb 2021

Guest Lecturer

- Established learning objectives, formulated assessment methods and designed learning activities of a Solid Mechanics course for 2nd year undergraduate students in Materials Science and Engineering delivered online
- Delivered learning activities, provided extra-curricular support, assessed the achievement of learning outcomes
- Managed remotely a team of 5 teaching assistants

LULEÅ UNIVERSITY OF TECHNOLOGY

Luleå, Sweden

Jan 2018 – Dec 2019

UNIVERSITÉ DE LORRAINE

Nancy, France

Sep 2015 – Dec 2017

Early-stage Researcher

- Kickstarted and completed an international research project between institutions in France, Sweden, and Germany
- Developed automated software pipelines for the semi- and un-supervised generation and analysis of numerical models
- Developed models of fracture for thin-ply laminates
- Co-supervised master students' research projects
- Disseminated results through the publication of journal articles
- Presented results at international conferences and seminars

ETH ZÜRICH

Zürich, Switzerland

Sep 2013 – Aug 2015

R&D Engineer

- Participated to the development of a coupled LBM-FEM code for staggered fluid-structure interaction
- Optimized the performance of an in-house code for multi-scale modeling of wood

EDUCATION

Sep 2015 – Dec 2019	PHD POLYMERIC COMPOSITE MATERIALS	
	LULEÅ UNIVERSITY OF TECHNOLOGY	Luleå, Sweden
Sep 2015 – Dec 2019	PHD MATERIALS SCIENCE	
	UNIVERSITÉ DE LORRAINE	Nancy, France
Nov 2013	PE INDUSTRIAL ENGINEERING	
	POLITECNICO DI MILANO	Milano, Italy
Oct 2010 – Oct 2013	MSC SPACE ENGINEERING	GPA 110/110
	POLITECNICO DI MILANO	Milano, Italy
Sep 2011 – Jun 2012	MSC MECHANICAL ENGINEERING	GPA 4/4
	DREXEL UNIVERSITY	Philadelphia, USA
Sep 2007 – Sep 2010	BSC AEROSPACE ENGINEERING	GPA 110/110
	POLITECNICO DI MILANO	Milano, Italy

PROFESSIONAL DEVELOPMENT (SELECTED)

May 2021	STRUCTURING MACHINE LEARNING PROJECTS	
	DEEPLARNING.AI (THROUGH COURSERA)	USA
Apr 2021	NEURAL NETWORKS AND DEEP LEARNING	
	DEEPLARNING.AI (THROUGH COURSERA)	USA
May – Jul 2018	FUNDAMENTALS OF BUSINESS CERTIFICATE	
	QUANTIC SCHOOL OF BUSINESS AND TECHNOLOGY (PREVIOUSLY SMARTLY)	USA
Sep – Nov 2016	PROJECT MANAGEMENT	
	ECOLE CENTRALE LILLE	France
Jul 2015	EFFECTIVE EXPLOITATION OF HIGH PERFORMANCE COMPUTING SYSTEMS	
	SWISS NATIONAL SUPERCOMPUTING CENTER	Switzerland
May – Oct 2010	CNC TECHNICIAN CERTIFICATE	
	CENTRO DI FORMAZIONE SALESIANO DON BOSCO	Italy

COMPUTER SKILLS			C++	Python	Julia	Fortran	R	Matlab	Mathematica	Maple
Windows Batch	Unix Shell	Abaqus	Ansys	Comsol	FEniCs	OpenFOAM	Thermal Desktop	AutoCAD		
SQL	Git	Javascript	HTML	CSS	VBA	Excel	OpenMP	MPI	CUDA	OpenACC

TECHNICAL SKILLS	Manufacturing and testing of FRP	Operating CNC and precision machines
Milling, turning, drilling, welding	CAD/CAE/CAM	Circuit design and manufacturing
Optical and digital microscopy	Scanning electron microscopy	Strain and stress measurements
Project management	Funding and budgeting	Technical writing and communication

LANGUAGES	Italian	Native speaker	English	Highly proficient
	French	Highly proficient	Spanish	Highly proficient
	German	Working knowledge	Swedish	Working knowledge