LUCA DI STASIO

Postdoctoral (Experienced) Researcher in Mechanical Engineering

Discovery Boulevard, G-3900, KAUST, Thuwal, Saudi Arabia

Italian & EU Citizen **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

KAUST — Thuwal, Saudi Arabia

Apr 2020 - Present **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 **Early-stage Researcher**

- Completed successfully 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

UNIVERSITÉ DE LORRAINE — Nancy, France

Sep 2015 – Dec 2017 **Early-stage Researcher**

- Kickstarted 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 (mesh generation, CSM/Fracture Mechanics simulation, data analysis)
- 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

IMDEA MATERIALS INSTITUTE — Madrid, Spain

Nov 2012 – Aug 2013 **Research Assistant**

- Organized and completed successfully an international research project between institutions in Italy and Spain
- Independently designed and conducted a series of mechanical tests to address the effect of loading rate on composites
- Developed CAE models and conducted FEM analysis of the experiments
- Implemented routines for feature detection and extraction of Fracture Mechanics parameters from video recordings of experiments

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**	
	DEEPLEARNING.AI (THROUGH COURSERA)	USA
Apr 2021	**NEURAL NETWORKS AND DEEP LEARNING**	
	DEEPLEARNING.AI (THROUGH COURSERA)	USA
May – Jul 2018	**FUNDAMENTALS OF BUSINESS CERTIFICATE**	
	QUANTIC SCHOOL OF BUSINESS AND TECHNOLOGY (PREVIOUSLY SMARTLY)	USA
Mar 2018	**RESEARCH FUNDING**	
	LULEÅ UNIVERSITY OF TECHNOLOGY	Sweden
Sep – Nov 2016	**PROJECT MANAGEMENT**	
	ECOLE CENTRALE LILLE	France
Jul 2015	**EFFECTIVE EXPLOITATION OF HIGH PERFORMANCE COMPUTING SYSTEMS**	
	SWISS NATIONAL SUPERCOMPUTING CENTER	Switzerland

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