

# Riccardo MILANI | RESUME

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## PhD, Mathematical Engineer

### »»» Education

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| since 2021                                                                                                                                                                                                                             | <b>Postdoctoral researcher</b>                 | CEREA - École des Ponts ParisTech         |
| <ul style="list-style-type: none"><li>» SCIENCES<sup>2024</sup> - the physics of sports</li><li>» Archery: Simulation of arrow flight in real-life conditions</li></ul>                                                                |                                                |                                           |
| 2017 - 2020                                                                                                                                                                                                                            | <b>PhD Student in Applied Mathematics</b>      | École des Ponts ParisTech, INRIA, EDF R&D |
| <ul style="list-style-type: none"><li>» <i>Compatible Discrete Operator</i> schemes for the unsteady incompressible Navier–Stokes equations</li><li>» Advisors: Ern Alexandre (ENPC, INRIA) and Bonelle Jérôme (EDF R&amp;D)</li></ul> |                                                |                                           |
| 2015 - 2017                                                                                                                                                                                                                            | <b>MSc in Mathematical Engineering</b>         | Politecnico di Milano                     |
| <ul style="list-style-type: none"><li>» <i>Laurea Magistrale</i> in Mathematical Engineering, specialization: Applied Mathematics &amp; Computer Sciences</li><li>» Score: 110 and honors/110</li></ul>                                |                                                |                                           |
| 2013 - 2017                                                                                                                                                                                                                            | <b>Cycle of <i>Polytechnicien</i> Engineer</b> | École polytechnique                       |
| <ul style="list-style-type: none"><li>» Education cycle equivalent to BSc and MSc</li><li>» Specialization: Applied Mathematics - PDEs</li></ul>                                                                                       |                                                |                                           |
| 2010 - 2015                                                                                                                                                                                                                            | <b>BSc in Mathematical Engineering</b>         | Politecnico di Milano                     |
| <ul style="list-style-type: none"><li>» <i>Laurea Triennale</i> in Mathematical Engineering. Score: 110 and honors/110</li><li>» Awarded "Best freshman" (2010) after the results of the entry test and first semester exams</li></ul> |                                                |                                           |

### »»» Experience

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| 09/'16-02/'17                                                                                                                                                                                                                         | <b>Research Internship, 6 months</b> | EDF R&D, Chatou       |
| <ul style="list-style-type: none"><li>» Development and numerical analysis of a 3D HHO method for anisotropic diffusion</li><li>» Integration within the industrial code <i>Code_Saturne</i> (C); parallelization by OpenMP</li></ul> |                                      |                       |
| 03-08/2015                                                                                                                                                                                                                            | <b>Research Internship, 5 months</b> | US ESI R&D, San Diego |
| <ul style="list-style-type: none"><li>» First steps into the development of a new method for a fast computation of the vibro-acoustic response of a system</li><li>» Validations against software simulations</li></ul>               |                                      |                       |

### »»» Programming skills

- » **Good knowledge:** C/C++, OpenMP, MPI,  $\LaTeX$ , Unix systems, MATLAB, Git/SVN, *Code\_Saturne*, Office
- » **Basic knowledge:** Python, shell scripting, Fortran, FreeFem++, SALOME, Java, R

### »»» Languages

- » **Italian:** Native
- » **English:** Fluent, FCE certificate, B2
- » **French:** Fluent, TCF certificate, C1
- » **Russian:** Conversational level

### »»» Extracurricular activities

- » Head of a 40-student dormitory ('15)
- » General-treasurer of AIM ('16)
- » PhD-students representative for EDF-MFEE ('18-'20)
- » Running (Paris marathon '19)

### »»» Volunteering and other Interests

- » Summer work camps (Kenya '10, '11; Rwanda '17)
- » Active member of Smileland, which backs an orphans village in Congo
- » Italian classes for refugees ('15)