Hadrien **Montanelli**

Ph.D. Applied Mathematics

Postdoctoral Research Scientist at Columbia University

Contact

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Languages

English
French
German

Hacking Skills

MATLAB
Python, C
HTML
CSS

Interests

Piano
Soccer
Hiking

Experience

Sep 2017 – July 2018 **Columbia University** *Postdoctoral Research Scientist* New York, USA

- Mathematical analysis of Deep Learning models and numerical algorithms for nonlocal PDEs with applications in Biophysics and Peridynamics
- Wrote three research articles (see my Google Scholar)

Oct 2013 – June 2017 **University of Oxford** *Teaching Assistant, Tutor and Instructor* Oxford, UK

- Many different topics including MATLAB, Scientific Computing and Approximation of Functions

April 2013 – Sep 2013 **CERFACS** *Research Intern* Toulouse, FR

- Proposed a new methodology and developed an algorithm in Python (about 500 lines) to solve aerodynamic shape optimization problems for turbines
- Wrote a research article

Mar 2012 – July 2012 **ISAE-SUPAERO** *Research Intern* Toulouse, FR

- Developed an algorithm in C (about 2000 lines) to solve 2D acoustic scattering problems
- Wrote a 26-page technical report

Sep 2011 – Feb 2012 **University of Manchester** *Research Intern* Manchester, UK

- Analysis of CBI2 telescope data using Python codes
- Wrote a 27-page technical report

Summer 2010 **INRA** *Research Intern* Toulouse, FR

- Developed an algorithm in MATLAB (about 500 lines) to solve optimization problems under uncertainty
- Wrote a 28-page technical report

Education

2013 – 2017 **University of Oxford** *Ph.D. Applied Mathematics* Oxford, UK

- Created new algorithms for nonlinear Partial Differential Equations
- Lead developer of the MATLAB-based Chebfun package (10k+ lines added)
- Wrote a 183-page thesis and five research articles
- 13 presentations at conferences in the UK and in France/China/Brasil

2012 – 2013 **Paul Sabatier University** *M.Sc. Applied Mathematics* Toulouse, FR

- Functional Analysis, Scientific Modelling, Scientific Computing

2009 – 2013 **ISAE-SUPAERO** *M.Sc. Aerospace Engineering* Toulouse, FR

- Aerodynamics, Computational Fluid Dynamics