



Lucía Rodrigo Insausti

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I have a PhD in Nanotechnology about theoretical simulations of graphene systems. I have a very solid programming basis and data analysis skills. Now I am seeking a career change towards bioinformatics and biostatistics. I am specially interested in their application in genomics and clinical research and how the latest machine learning techniques can help in the analysis of these huge data sets.

Education

Universidad Autónoma de Madrid

Madrid, Spain

PHD IN CONDENSED MATTER PHYSICS AND NANOTECHNOLOGY, CUM LAUDE

Sep. 2010 – Apr. 2016

- Thesis entitled *Characterizing Real-life Graphene through the Latest First-Principles Methodological Developments*
- 8 scientific papers published in world-renowned peer-reviewed journals
- 8 contributed talks and 3 poster presentations in different international conferences

Universidad Autónoma de Madrid

Madrid, Spain

MASTER'S DEGREE IN CONDENSED MATTER PHYSICS AND NANOTECHNOLOGY

Sep. 2009 – Jun. 2010

- Master's thesis entitled *Theoretical study of the electronic properties and STM images of (S)-Proline on Cu(110)*
- Merit-based scholarship for postgraduate studies

Universidad Autónoma de Madrid

Madrid, Spain

BACHELOR'S DEGREE IN PHYSICS

Sep. 2004 – Jun. 2009

- Excellence scholarship: "Neutrino Oscillations" project
- Initial research grant for students in their last year of studies: "High Density Hadronic Systems" project

Experience

Universidad Autónoma de Madrid

Madrid, Spain

ASSISTANT PROFESSOR

Sep. 2014 – Sep. 2016

- Ayudante Universidad LOU (020020060) merit-based contract
- 60 hours of teaching per academic year by contract (for a total of 120 hours)

Universidad Autónoma de Madrid

Madrid, Spain

PREDOCTORAL RESEARCHER

Sep. 2010 – Sep. 2014

- Predoctoral contracts funded by research projects (CSD2010-00024, MAT2011-23627, S2009-MAT-1467, MAT2008-02939-E)
- 20 hours of teaching per academic year (for a total of 80 hours)

Research stays abroad

Lawrence Berkeley National Laboratory (LBNL)

California, USA

MATERIALS SCIENCES DIVISION (MIQUEL SALMERON)

10 weeks

Aalto University

Helsinki, Finland

DEPARTMENT OF APPLIED PHYSICS (HANNES JÓNSSON)

5 weeks

Courses and Certifications

Machine Learning

California, USA

STANFORD UNIVERSITY MOOC

20 Aug. – 13 Nov. 2016

- Supervised and unsupervised learning, special applications and topics, advice on building a machine learning system

Biology Meets Programming: Bioinformatics for Beginners

California, USA

UNIVERSITY OF CALIFORNIA (SAN DIEGO) MOOC

2 Oct. – 31 Oct. 2016

- Search of DNA replication origin, detection of regulatory motifs: greedy, randomized and Gibbs sampler motif search algorithms

Understanding Clinical Research: Behind the Statistics

Cape Town, South Africa

UNIVERSITY OF CAPE TOWN MOOC

18 Jun. – 30 Jul. 2016

- Study types and data description, hypothesis testing and confidence levels, appropriate test selection, analysis of the accuracy

Skills

Programming Fortran, C, Matlab/Octave, Python, Shell scripting, \LaTeX

Languages Spanish (native), English (fluent), French (beginner)