

Nuno Lourenço

Ph.D. Researcher



bio

Name: Nuno António
Marques Lourenço

Birth: November 14, 1988

Citizenship: Portuguese

contact

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languages

Portuguese
English fluent

programming

Python, Java
C, C++

research interests

Hyper-Heuristics
Evolutionary Computation
Complex Systems
Artificial Intelligence
Problem Optimization
Machine Learning
Biology
Compilers

Education

2011–Present **Ph.D.** candidate on Evolutionary Computation University of Coimbra, Portugal
Dissertation subject *Evolution of Evolutionary Algorithms* under the guidance of
the professors Ernesto Costa and Francisco B. Pereira

2009–2011 **Masters** in Informatics Engineering University of Coimbra, Portugal
Swarm Intelligence Algorithms for Cluster Geometry Optimization
This dissertation proposed an Ant Colony Optimization algorithm to tackle the
problem of Cluster Geometry Optimization

Advisors: Dr. Francisco B. Pereira and Dr. Luís Paquete

Thesis Grade: 19/20

Graduated with 17/20

2006–2009 **Bachelor** in Informatics Engineering University of Coimbra, Portugal
Graduated with 16/20

Teaching Experience

2011–2012 **University of Coimbra** Coimbra, Portugal
Invited Assistant Professor
Courses: *Operating Systems* and *Compilers*

2010–2011 **University of Coimbra** Coimbra, Portugal
Graduated Teaching Assistant
Courses: *Introduction to Programming and Problem Solving* and *Introduction to Procedural Programming*

Research Experience

2011–Present **Ph.D. Researcher** Centre for Informatics and Systems of the University of Coimbra
Researcher at Evolutionary Complex Systems Group

2009–2010 **Researcher** Centre for Informatics and Systems of the University of Coimbra
Applying swarm intelligence algorithms to the cluster geometry optimization problem

Other Experience

- 2008 **Interactivius**
Organized a technological event that introduced new ways of human computer interaction to the general population.
- 2008 **Developer** WIT Software
Worked on the Research and Development team
- 2005 **Trainee** CARD Services-The Netherlands
Performed repairs in notebooks, printers, and projectors. This was a short time internship, provided by the Leonardo Da Vinci Program

Awards

- 2011–Present **Ph.D. Scholarship** Fundação para a Ciência e Tecnologia (FCT), Portugal
Research grant SFRH/BD/79649/2011
- 2010 **Codebits 2010**
Third place in the programming contest
- 2009 **Research Scholarship** Fundação para a Ciência e Tecnologia (FCT), Portugal
Research grant for the project PTDC/QUI/69422/2006
- 2009 **3% Best Faculty Students** University of Coimbra
- 2008 **3% Best Faculty Students** University of Coimbra

Communication skills

- 2013 **Poster** 4ª Escola Luso-Brasileira de Computação Evolutiva (ELBCE), Coimbra
As part of the a summer school, I created a poster entitled *Learning Evolutionary Algorithms using Hyper-Heuristics*
- 2013 **Oral Presentation** Centre for Informatics and Systems of the University of Coimbra
Presented the latest results of the ongoing Ph.D. research to the Evolutionary Complex Systems Group members
- 2012 **Oral Presentation** Centre for Informatics and Systems of the University of Coimbra
Presented the latest results of the ongoing Ph.D. research to the Evolutionary Complex Systems Group members
- 2011 **Oral Presentation** Centre for Informatics and Systems of the University of Coimbra
Presented the research I conducted for my Masters degree to the Evolutionary Complex Systems Group members
- 2010 **Poster** 2ª Escola Luso-Brasileira de Computação Evolutiva (ELBCE), Guimarães
As part of the a summer school, I created a poster entitled *Optimização da geometria de agregados atômicos usando algoritmos de inteligência de enxame*
- 2010 **Oral Presentation** Centre for Informatics and Systems of the University of Coimbra
Presented the research I was conducting in the research project PTDC/QUI/69422/2006 to the Evolutionary Complex Systems Group members
- 2010 **Oral Presentation** Department of Chemistry, University of Coimbra
Presented the research I was conducting in the research project PTDC/QUI/69422/2006 to the remaining members of the project

Publications

articles in peer-reviewed journal

PSO-CGO: A Particle Swarm Algorithm for Cluster Geometry Optimization

Nuno Lourenço, Francisco B. Pereira

International Journal of Natural Computing Research 2.1 (2011) pp. 1–20. 2011

External Citations: 1

international peer-reviewed conferences/proceedings

The importance of the learning conditions in hyper-heuristics

Nuno Lourenço, Francisco B. Pereira, Ernesto Costa

Proceeding of the fifteenth annual conference on Genetic and evolutionary computation conference, 2013, Amsterdam, The Netherlands

DACCO: a discrete ant colony algorithm to cluster geometry optimization

Nuno Lourenço, Francisco B. Pereira

Proceedings of the fourteenth international conference on Genetic and evolutionary computation conference, 2012, Philadelphia, Pennsylvania, USA

Evolving evolutionary algorithms

Nuno Lourenço, Francisco B. Pereira, Ernesto Costa

Proceedings of the fourteenth international conference on Genetic and evolutionary computation conference companion, 2012, Philadelphia, Pennsylvania, USA

External Citations: 2

other publications

Swarm Intelligence Algorithms for Cluster Geometry Optimization

Nuno Lourenço

2011, M.Sc. Thesis