



Andrés Herrera Poyatos

Curriculum Vitae

Education

- 2009-2013 **Estalmat, SAEM Thales**, University of Granada, Granada, Spain.
A project to detect and stimulate the precocious mathematical talent.
- 2011-2013 **High School, IES Trevenque**, La Zubia, Granada, Spain.
Academic average grade – 9.84 / 10. Access to university grade – 13.63 / 14
- 2013-Now **Double Degree in Computer Science and Mathematics**, *University of Granada*, Granada, Spain.
Computer Science average grade – 9.78 / 10. Mathematics average grade – 9.93 / 10

Computer Science Subjects Grades at University

Subject	Grade	Qualification
Programming Fundaments	10.0	Cum Laude
Software Fundaments	9.6	Cum Laude
Physics and Technology Fundaments	10.0	Cum Laude
Logic and Discrete Methods	10.0	Cum Laude
Programming Methodology	10.0	Cum Laude
Computers Technology	9.6	Excelent
Data Structures	10.0	Cum Laude
Computers Estructure	9,6	Cum Laude
Operating Systems	9.2	Excelent

Mathematics Subjects Grades at University

Subject	Grade	Qualification
Calculus I	10.0	Cum Laude
Geometry I	10.0	Cum Laude
Calculus II	10.0	Cum Laude
Geometry II	10.0	Cum Laude
Descriptive Statistics and Probability	9.8	Cum Laude
Numerical Methods I	9.8	Cum Laude
Analysis I	9.8	Cum Laude
Topology I	10.0	Cum Laude
Algebra I	10.0	Cum Laude

La Zubia – Granada, Spain

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📄 github.com/andreshp • Occupation: Student

- 2014 **Aproximación práctica a la ciencia de datos y big data: herramientas Knime, R, Hadoop y Mahout (Practical data science and big data: Knime, R, Hadoop and Mahout tools.)**, *International University of Andalucía (UNIA)*, Baeza, Grade 10/10.
- 2015 **The Data Scientist's Toolbox**, *Coursera*, Johns Hopkins University, Average grade – 100.0 %. Statement of Accomplishment with Distinction.
- 2015 **R Programming**, *Coursera*, Johns Hopkins University, Average grade – 100.0 %. Verified Statement with Distinction
- 2015 **Algorithms: Design and Analysis, Part 1**, *Coursera*, Stanford University, Average grade – 98.0 %. Statement of Accomplishment.

Publications

- Title** *Algoritmo Genético con Diversificación Voraz y Equilibrio entre Exploración y Explotación. (Genetic algorithm with greedy diversification and equilibrium between exploration and exploitation)*
- Authors** Andrés Herrera Poyatos & Professor Francisco Herrera
- Published** 2105 - Conference at [MAEB 2015](#)
- Abstract** Genetic algorithms may converge too fast if population diversity is not enough to keep an equilibrium between exploration and exploitation. In this work we propose an hybrid genetic algorithm which keeps the population diversity updating the population with new solutions obtained from an randomized greedy algorithm. It also achieves a good equilibrium between exploration and exploitation using parents and children competition and other specific components for the algorithm.

Awards

- 2009 Top 5 in XXV Thales Mathematics Olympiad - Granada. Classified for the regional phase.
- 2009 Selected for ESTALMAT - Andalucía, a project to detect and stimulate the precocious mathematical talent.
- 2011 2nd place - I Short Story Competition, "Al borde de lo inconcedible", Villa de la Zubia.
- 2012 1st place - II Short Story Competition, "Al borde de lo inconcedible", Villa de la Zubia.
- 2013 4th place - XIII Mathematics Olympiad "Guadalentín" - 16 to 17 years old.
- 2013 4th place - XXIV Spanish Physics Olympiad - Local Phase in Granada.
- 2013 1st place - XLIX Spanish Mathematics Olympiad - Local Phase in Granada.
- 2013 Top 12 - XLIX Spanish Mathematics Olympiad - Regional Phase in Andalucía. Classified for the XLIX Spanish Mathematics Olympiad - National Phase representing Andalucía.
- 2013 Honourable Mention - Best High School Academic Record in La Zubia, Granada, Spain.
- 2013 Top 10 students with highest grades in Granada province - University Access Exam (PAU) (Grade: 13.63 / 14)

Languages

- Spanish **Mothertongue**
- English **Certificate in Advanced English (CAE)**

Programming Languages

Basic	ASSEMBLER, OCTAVE, MAXIMA, PROLOG, HASKELL
Intermediate	SCALA, \LaTeX , RUBY, JAVA
Advanced	PYTHON, R, C++, C, BASH

Interests

Topics on which I am interested and some related links.

- Learning. [My Coursera Profile](#)
- Algorithms. [My Hackerrank Profile](#)
- Machine Learning. [My Kaggle Profile](#)
- Heuristics. [An Open Source Project](#). [Genetic Algorithms](#)
- Writing. Computer science and mathematics dissemination. [A blog where I write](#)
- Mathematics.
- Solving real world problems applying mathematics and computer science theory.

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