

Part A. PERSONAL INFORMATION

CV date 21/09/2018

First and Family name	Rafael Caballero Roldán		
Social Security, Passport, ID number	0898752V	Age	49
Researcher numbers	Researcher ID	T-2232-2017	
	Orcid code	0000-0001-8181-5532	

A.1. Current position

Name of University/Institution	Universidad Complutense de Madrid		
Department	Sistemas Informáticos y Computación		
Address and Country	Calle del Prof. José García Santesmases, 9, 28040 Madrid, Spain		
Phone number	913947553	E-mail	rafacr@ucm.es
Current position	Profesor Contratado Doctor	From	01/07/2008
Espec. cód. UNESCO	120323,120304		
Palabras clave	Declarative Programming, Debugging, Data Science		

A.2. Education

PhD	University	Year
Phd Mathematics	Universidad Complutense de Madrid	2004

A.3. JCR articles, h Index, thesis supervised...

- Sexenios: 2. (the third one will be request on 31-12-2019).
- Thesis supervised: 2
- Papers: 15 JCR, 116 (Google Scholar), 40 (SCOPUS),
- Total Cites: 813 (Google Scholar), 226 (SCOPUS),
- h index: 14 (Google Scholar), 8 (SCOPUS)
- i10 index: 27 (Google Scholar)

Part B. CV SUMMARY (max. 3500 characters, including spaces)

Rafael Caballero is Profesor Contratado Doctor at the department of Sistemas Informáticos y Computación, School of Computer Science, Universidad Complutense of Madrid (Spain). He holds a Ph.D. in Mathematics from the Universidad Complutense de Madrid and has been member of 10 different research projects since 2000, including 7 projects of the General Research Plan. Currently he is part of the research group "DATA SCIENCE AND SOFT COMPUTING FOR SOCIAL ANALYTICS AND DECISION AID", classified as excellent by the University internal standards. He is author of about 100 different papers, with 15 different co-authors of 5 different nationalities. He is also coauthor of 4 books. His main lines of research are debugging (particularly algorithmic or declarative debugging), data science, NoSQL databases, and declarative languages. He has made some short research stays in Münster (Germany) and Oslo (Norway). He has been main researcher in a coordinated project with Germany supported by the German Academic Exchange Service (DAAD).

Part C. RELEVANT MERITS

C.1. Publications (including books)

Some relevant publications of the last 10 years

Authors: Rafael Caballero, Enrique Martín-Martín, Adrián Riesco, Salvador Tamarit
 Title: Declarative Debugging of Concurrent Erlang Programs
 Ref.: Journal of Logical and Algebraic Methods in Programming. Vol. 11, Elsevier 2018
 Vol 101 Páginas, inicial: 22 final: 41 Fecha: 2018

Authors: Rafael Caballero, Sagar Sen, Jan F Nygård

Title: Anticipating Anonymity in Screening Program Databases
Ref.: International Journal of Medical Informatics. Vol. 103, Elsevier, 2017

Authors: Rafael Caballero, Adrián Riesco, Josep Silva
Title: A survey on algorithmic debugging
Ref.: ACM Computing Surveys (CSUR), 50(4) 2017

Authors: Rafael Caballero, Peter Stuckey, Antonio Tenorio-Fornés
Title: Two type extensions for the constraint modeling language MiniZinc
Ref.: Science of Computer Programming, ISSN: 0167-6423, Vol. 111, Elsevier 2015

Authors: Rafael Caballero, Enrique Martín-Martín, Salvador Tamarit y Adrián Riesco
Title: A zoom-declarative debugger for sequential Erlang programs
Ref.: Science of Computer Programming. Vol 104, Elsevier 2015

Authors: Rafael Caballero, Mario Rodríguez-Artalejo, Carlos A. Romero-Díaz.
Title: A Transformation-based Implementation for CLP with Qualification and Proximity.
Ref.: Theory and Practice of Logic Programming, vol. 14, no 1, p. 1-63, 2014.

Authors: Rafael Caballero, Enrique Martín-Martín, Salvador Tamarit y Adrián Riesco
Title: Declarative debugging of rewriting logic specifications
Ref.: The Journal of Logic and Algebraic Programming (JLAP), Vol. 81, 2012.

Authors: Rafael Caballero, Mario Rodríguez-Artalejo, Carlos A. Romero-Díaz.
Title: Qualified Computations in Functional Logic Languages.
Ref.: ICLP'09) vol. 14, no 1, p. 1-63, 2009.

Books

Authors: Rafael Caballero, Enrique Martín-Martín
Title: Las bases de Big Data
Editorial: Catarata, 2015

Authors: Rafael Caballero, Enrique Martín-Martín
Title: BIG DATA CON PYTHON: Recolección, almacenamiento y proceso
Editorial: RC, 2018

C.2. Research projects and grants

Project Title: ¿Nos dirigimos hacia una sociedad desintermediada? Un estudio de la participación social mediante Big Data y Aprendizaje Asistido.
Sponsored by: Programa de financiación de proyectos de investigación Santander-Universidad Complutense de Madrid, convocatoria 2016 (PR26/16). Referencia: PR26/16-21B-1
Participants: Facultades de Informática, Matemáticas y Económicas y Empresariales, UCM
Duration, from: Enero 2016 to: Diciembre 2018 Total amount granted: 13000 €
Main Researcher: José Manuel Robles
Number of researchers: 18

Project Title: Un sistema integrado de cooperación de resolutores para la generación automática de casos de prueba en Java. (acción integrada hispano-alemana).
Sponsored by: Servicio Alemán de Intercambio Académico DAAD.
Participants:

- Universidad Complutense de Madrid
- Westfälische Wilhelms - Universidad de Münster (Alemania)

Duración, desde: Enero 2014 to: Diciembre 2015 Total amount granted: 2460 € (subproyecto UCM)
Main Researcher: Rafael Caballero Roldán (subproyecto UCM), Herbert Kuchen (Univ. de Münster)



Number of researchers: 4

Project Title: Validación asistida de programas mediante análisis, anotaciones, demostraciones matemáticas y pruebas de ejecución.

Referencia: TIN2013-44742-C4-3-R

Sponsored by: Ministerio de Economía y Competitividad

Participants:

· Universidad Complutense de Madrid, Universidad Politécnica de Valencia, Universidad de Almería

Duración, desde: Enero 2014 to: Diciembre 2017 Total amount granted: 155.503 € (subproyecto UCM)

Main Researcher: Ricardo Peña Mari

Number of researchers: 9

Project Title: FAST: Foundations and Applications of Declarative Software Technologies

Subproyecto STAMP (UCM): Software Tools and Multiparadigm Programming

Sponsored by: Ministerio de Ciencia e Innovación (ref. TIN2008-06622-C03-01)

Participants:

· Universidad Complutense de Madrid

· Universidad Politécnica de Madrid

· Universidad de Almería

Duration, from:: Enero 2009 to: Diciembre 2011 Total amount granted: 323070 € (subproyecto STAMP)

Main Researcher: Fco. Javier López Fraguas.

Number of researchers: 19 (subproyecto STAMP).

Project Title: Programa en Métodos para el Desarrollo de Software Fiable, de Alta Calidad y Seguro (PROMESAS)

Sponsored by: Comunidad Autónoma de Madrid. Consejería de Educación (S-0505/TIC/0407)

Entidades participantes: Universidad Complutense de Madrid

Duración, desde: Enero de 2006 to: Diciembre de 2009

Main Researcher: Francisco Javier López Fraguas

Number of researchers: 14

Project Title: Métodos Formales en Sistemas Software Heterogéneos (MERIT-FORMS-UCM)

Sponsored by: Programa Nacional MEC (TIN2005-09207-C03-03)

Entidades participantes: Universidad Complutense de Madrid

Duration, from: Enero de 2006 to: Diciembre de 2008 Total amount granted: 260.000,00 Euros

Main Researcher: Francisco Javier López Fraguas

Number of researchers: 14

Project Title: Métodos y Herramientas Lógicas para el Diseño y Verificación de Software Multiparadigma (MELODIAS)

Sponsored by: MCYT (TIC-2002-01167)

Participants: U.C.M.

Duration, from: Dic/2002 to: Nov./2005 Total amount granted: 160.792 euros

Main Researcher: Francisco J. López Fraguas

Number of researchers: 14

Project Title: Técnicas Avanzadas de Desarrollo de Programas en Entornos Declarativos (TREND)

Sponsored by: PRONTIC (TIC 98-0445-C03-02)

Participants: U.C.M., U.P.V., U.M.A. Duration, from: Dic./1998 to: Nov./2001

Total amount granted: 91800

Main Researcher: María Alpuente Frasnado

Number of researchers: 21 (UCM subproject)

Project Title: Construction of Computational Logics II (CCL II)
Sponsored by: ESPRIT (Basic Research WG22457)
Participants: U.C.M., U.P.C, 7 additional european universities and the company COSYTEC
Duration, from: June/1995 to: June/1998 Total amount granted:
Main Researcher: J.P. Jouannaud (Université de París-Sud)
Number of researchers: 10 (UCM)

C.3. Contracts

Contract Title: Applications Development with Neo4j
Type of contract: Contracts according to the Article 83 of the Spanish 'ley orgánica de universidades'
Company: DESFUFOR, S.L.
Duration. From: 22th of November, 2016 To: 30th of November, 2016
Principal researcher: Rafael Caballero Roldán
Number of researchers: 1
Total Budget: 1200 euros

Contract Title: Machine Learning in Spark with MLlib
Type of contract: Contracts according to the Article 83 of the Spanish 'ley orgánica de universidades'
Company: Sotec Consulting S.L.
Duration. From: 11th of July, 2016 To: 15th of July, 2016
Principal researcher: Rafael Caballero Roldán
Number of researchers: 1
Total Budget: 3000 euros

Contract Title: Query discrepancy detection in SQL
Type of contract: Contracts according to the Article 83 of the Spanish 'ley orgánica de universidades'
Company: Hopla Software
Duration. From: First of October, 2014 To: 28th of October de 2015
Principal researcher: Rafael Caballero Roldán
Number of researchers: 1
Total Budget: 12.500,44 euros

Contract Title: LHE System
Type of contract: Contracts according to the Article 83 of the Spanish 'ley orgánica de universidades'
Company: Spanish Royal Academy of History
Duration. From: First of February, 2007 To: 31th of May, 2007
Principal researcher: Fernando Sáenz Pérez
Number of researchers: 3
Total Budget: 18.044,44 euros

C.4. Patents

C.5, C.6, C.7... (e. g., Institutional responsibilities, memberships of scientific societies...)

Evaluator for Big Data projects for the Spanish National Research Agency since 2016.
Vice Dean of Academic Affairs, school of Computer Science, 2010-2014.
Since 2017 Director of the Cathedra on Big Data and Data Analysis HP-UCM.