

# Pablo Gómez-Abajo

Assistant Professor | PhD



## Personal

Pablo **Gómez-Abajo**  
Nationality: Spanish  
Birth year: 1982

## About me

Assistant Professor in Computer Languages and Systems in the Department of Computer Science at Universidad Autónoma de Madrid with a broad background both in the Industry and in Academia.

## Areas of specialization

Software Engineering  
• Software Testing • Adaptive Systems • Human-Computer Interaction • Modelling

## Projects

- **Wodel**: model mutation
- **Wodel-Edu**: education assignments
- **Wodel-Test**: mutation testing
- **Gotten**: metamorphic testing

## Skills

Java / C / C# / JavaScript  
R / Xtext & Xtend / Henshin  
MOMoT / Botium / Rasa

## Current interests

Chatbots Testing / NLP

## Languages

Pablo Gómez-Abajo speaks Spanish, English and Portuguese fluently, and can interact in French, German, Italian a Arabic.

## Contact

- @ Pablo.GomezA@uam.es
- @GomezAbajo\_en
- Pablo Gómez-Abajo
- Pablo Gómez-Abajo
- gomezabajo

## SHORT RESUMÉ

2019 – current

### Assistant Professor

UNIVERSIDAD AUTÓNOMA DE MADRID · Madrid

Assistant professor in the field of Languages and Computer Systems within the Computer Science Department of the Universidad Autónoma de Madrid.



2015 – current

### Research Associate

UNIVERSIDAD AUTÓNOMA DE MADRID · Madrid

Research work in the design and development of domain-specific languages and domain-independent solutions within the research group in Modelling and Software Engineering (<https://www.miso.es/>).



2008 – 2015

### IT Manager

INGENIERÍA Y PREVENCIÓN DE RIESGOS, S.L. · Madrid

Manager of the Software Department. Software development of web-oriented applications (document management systems) and desktop applications (office software).



## DEGREES

2023 – current

### Secondary School Training, Specialization in Computer Science

M.Sc. · Universidad Nacional de Educación a Distancia

Passed 5/60 ECTS – 7.4 out of 10



2022 – current

### Clinic Bioethics

M.Sc. · Universidad Internacional Menéndez Pelayo

Passed 6/60 ECTS – 8.4 out of 10



2020 – current

### Research in Artificial Intelligence

M.Sc. · Universidad Internacional Menéndez Pelayo

Passed 7.5/60 ECTS – 7.6 out of 10



2016 – 2020

### Computer Science and Communications Engineering

PHD · Universidad Autónoma de Madrid

"A domain-specific language for model mutation" – Excellent Cum Laude



2014 – 2016

### Information and Communication Technologies Research and Innovation

M.Sc. · Universidad Autónoma de Madrid

8.19 out of 10 – "A framework for the generation of exercises via model mutation" – Special Mention in MSc. Thesis



2006 – current

### Philosophy

B.A. · Universidad Nacional de Educación a Distancia

Passed 74/240 ECTS – 8 out of 10



2000 – 2006

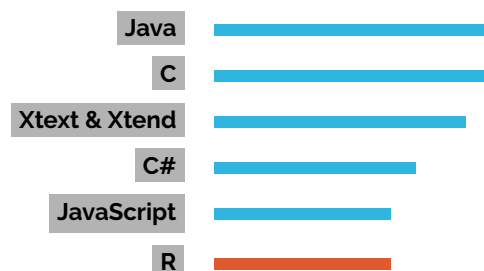
### Computer Science and Engineering

B.Sc. · Universidad Autónoma de Madrid

7.4 out of 10



## PROGRAMMING



## LANGUAGES

Spanish	C2	mother tongue
English	C2	<div style="width: 100%;"></div>
Portuguese	B1	<div style="width: 75%;"></div>
Arabic	A1	<div style="width: 25%;"></div>

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# Pablo Gómez-Abajo

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## Short bio

Pablo Gómez-Abajo began his Bachelor's in Computer Science at the Universidad Autónoma de Madrid in 2000 in full swing of .com companies and the birth of Google or Amazon. During the summer before the start of his university studies, he performed a stage of a month in Cambridge (United Kingdom), where he completed a course on the English language with native professors, obtaining the highest score, and where he interacted with students from practically all the world's developed countries.

In the summer of 2003, Pablo Gómez-Abajo completed the Road to Santiago, beginning from the Leonese city of Astorga. During this experience, he interacted with young people from all the Spanish regions and the rest of the world.

During the course term 2004–2005, Pablo Gómez-Abajo performed a short studies stage under the Erasmus program of the European Union in the Portuguese capital of Lisbon, where he accomplished a European Portuguese language course, obtaining the highest score.

Pablo Gómez-Abajo earned his Bachelor's in Computer Science studies at the Universidad Autónoma de Madrid in June 2006, obtaining an average score of 7.4 over 10 in the degree. Next, he began his Bachelor's in Philosophy at the Universidad Complutense de Madrid. He has accomplished 74 ECTS credits of 240 of these studies, with an average score of 8 over 10.

Currently, Pablo Gómez-Abajo has completed a framework for mutation testing of chatbots in collaboration with Sara Pérez-Soler and Pablo C. Cañizares, and with the supervision of Esther Guerra and Juan de Lara.

## CURRICULUM

2019 – current

### Assistant Professor

UNIVERSIDAD AUTÓNOMA DE MADRID · Madrid 📍

Assistant professor in the field of Languages and Computer Systems within the Computer Science Department of the Universidad Autónoma de Madrid. During this time, I have given lectures on "Compilers" (120h, from which 30h correspond to a group taught in the English language), "Automata and languages theory" (30h), "Software analysis and design" (60h), and "Operating Systems" (45h) from the Bachelor's in Computer Science, and "Advanced Networks and the Internet" (12h) from the Master's in Computer Science.



2015 – current

### Research Associate

UNIVERSIDAD AUTÓNOMA DE MADRID · Madrid 📍

Research work in the design and development of domain-specific languages and domain-independent solutions within the research group in Modelling and Software Engineering (<https://www.miso.es/>) led by Juan de Lara and Esther Guerra within the Computer Science Department of the Universidad Autónoma de Madrid.



2008 – 2015

### IT Manager

INGENIERÍA Y PREVENCIÓN DE RIESGOS, S.L. · Madrid 📍

Manager of the Software Department. Software development of web-oriented applications (document management systems) and desktop applications (office software). Most of these projects have been developed using Microsoft .Net Framework & MySQL. I also acquired some skills in PHP and Java, and in Oracle and SQL Server database management systems during this time. The company itself mainly uses this software, and it is also provided as a service to other enterprises such as Adif, Canal de Isabel II, and Correos y Telégrafos.



## RECENT DISTINGUISHED PUBLICATIONS

- 2024** "Mutation testing for task-oriented chatbots". **Pablo Gómez-Abajo**, Sara Pérez-Soler, Pablo C. Cañizares, Esther Guerra, Juan de Lara. ACM 28th International Conference on Evaluation and Assessment in Software Engineering, EASE 2024. Salerno. Core A.
- 2023** "Automated engineering of domain-specific metamorphic testing environments". **Pablo Gómez-Abajo**, Pablo C. Cañizares, Alberto Núñez, Esther Guerra, Juan de Lara. Information and Software Technology. 2023. Vol 157. Q2 in Computer Science / Software Engineering in 2022.
- 2021** "Wodel-Test: A model-based framework for language-independent mutation testing". **Pablo Gómez-Abajo**, Esther Guerra, Juan de Lara, Mercedes G. Merayo. Software and Systems Modeling. Springer. 2021. Vol 20, pp.:767–793. Q2 in Computer Science / Software Engineering in 2021.
- 2018** "A tool for domain-independent model mutation". **Pablo Gómez-Abajo**, Esther Guerra, Juan de Lara, Mercedes G. Merayo. Science of Computer Programming. Elsevier. 2018. Vol 163, pp.:85–92. Q3 in Computer Science / Software Engineering in 2018.

## RECENT AWARDS & DISTINCTIONS

- 2022** "PhD. Thesis in the scope of Model-driven Software Engineering" "A domain-specific language for model mutation". **Pablo Gómez-Abajo**. ISDM track of the Jornadas de Ingeniería del Software y Bases de Datos, JISBD 2022. Santiago de Compostela.
- 2021** "Best new ideas/vision paper award" for the paper "New ideas: Automated engineering of metamorphic testing environments for domain-specific languages". Pablo C. Cañizares, **Pablo Gómez-Abajo**, Alberto Núñez, Esther Guerra, Juan de Lara. ACM SIGPLAN International Conference on Software Language Engineering, SLE 2021. Chicago. Virtual. Core B.
- 2021** "Best tool demo paper award" for the paper "Wodel-Edu: An MDE solution for the generation and evaluation of diagram-based exercises". **Pablo Gómez-Abajo**, Andrés Rico-Fernández, Esther Guerra, Juan de Lara. International Conference of Model-Driven Engineering Languages and Systems 2021, MoDELS 2021. Tokyo. Virtual. Core A.