

Cover Letter – César García Cabeza

Currently, I have just finished the first semester of my Master's Degree in Artificial Intelligence at the Technical University of Madrid. It is a research-oriented Master and it counts with a solid theoretical basis.

In this first semester, I have been able to gain knowledge and experience in many different fields within Artificial Intelligence, such as Computer Vision, Machine Learning, Deep Learning or Natural Language Processing. Regarding these fields of study, I am particularly interested in Natural Language Processing and Information Retrieval. Because of this, this second semester my master's thesis will consist on researching and implementing a multilingual document retrieval.

My Bachelor's Degree in Computer Software Engineering provided me with a strong technical basis in programming, software design and development – which, from my point of view, allowed me to develop a different way of thinking. However, my general impression is that software development (mainly web development) did not allow me to apply the knowledge I acquired to real-life problems, reason why I decided to pursue this Master's Degree. Besides that, regarding both the research and theoretical modules I have studied this first semester, they have had a significant impact on my working future perspectives.

Regarding my research experience, it is true that I have not had the opportunity to publish any paper yet. Nevertheless, I do have experience in working in research environments due to my internships both from my Bachelor's Degree and Master's degree. It is worth mentioning that my research work during my Bachelor's internships set a baseline for my Final Degree Project, receiving a grade of 10/10.

Apart from my academic and research experience, I have obtained experience in working within multicultural environments thanks to my Erasmus+ Exchange in Wroclaw, Poland. Another remarkable note is that I have participated in a volunteering program (Erasmus Student Network), an international student's association that enabled me to develop teamwork, coordination and leadership skills.

In relation to my main objectives during the residency, it should be highlighted that I am highly interested in broadening my research experience. I would apply my knowledge to contribute to the state-of-the-art development in some AI topic. As it has been mentioned before, my main interests are Natural Language Processing and Information Retrieval. I would be interested in working on those topics, especially Deep Learning applications (document classification, text summarization, text generation, words representation...), both monolingual and multilingual, where Facebook research is one of the best. On another note, I am also quite excited about the application of Deep Learning techniques to Computer Vision.

In a nutshell, being able to participate in the AI Residency program is what I need and what I aspire to. What attracts me the most is to be surrounded by the best experts in the fields that I am passionate about and learn from them, as well as to work hand in hand with them on current and important topics while gaining knowledge in research. Moreover, not only am I concerned about performing theoretical research, but also practical or industrial research where I could

see the actual impact of my research on daily life. Having said that, I consider Facebook to be an ideal place to do so, since I completely share Facebook's views on open-sourcing the technological advancements.

Brief summary of why I think I am a suitable candidate for AI Residency:

- Curious and ambitious person that always wants to learn more.
- Self-taught person and quick learner.
- Strong technical background.
- Deep Learning and Machine Learning experience.
- Research mindset and skills.
- Experience in teamworking in multicultural backgrounds.

To conclude, I am really motivated and excited about the idea of being able to join Facebook AI Research by means of the Residency Program. I personally believe that I am a suitable candidate and I could make notable contributions since I believe that my work would not let you down.