

## Ariadna Villanueva Marijuan



I am an extremely motivated and hard-working Biotechnologist, graduated from the Universidad Politécnica de Madrid (UPM) in 2019 with a computational specialization. During my Degree I acquired insight in biochemistry and molecular biology, while developing programming skills in various languages (mainly R and Python) and learning concepts in biomathematics and structural biology.

During my Degree, I have been mainly interested in the field of Systems Biology. For this reason, in 2019 I did a two-month internship at the Computational Systems Biology Group (CNB-CSIC), where I carried out a research project to analyze protein interaction networks both in human and yeast. Afterwards, I completed my Bachelor's thesis at the National Center of Biotechnology (CNB-CSIC, an institute of excellence Severo Ochoa), under the direction of Professor Susanna Manrubia (principal investigator of the Evolutionary Systems group). The thesis entitled "Mutation effects on RNA polymerase of virus Q $\beta$ " consisted in the analysis of the effects mutations that were found in evolution experiments had on the replicase of the virus Q $\beta$ .

Currently, I am pursuing the Master in Computational Biology, also held by the UPM. Last year, I was granted a one-year JAE Intro CSIC collaboration scholarship (aimed at students with an excellent academic transcript) to continue at the Evolutionary Systems group, so I am completing my Master's Thesis with Prof. Manrubia as well. The work I am developing involves generating null fitness networks and simulating the navigation of the networks by a viral population until the mutation-selection equilibrium is reached.

I believe my most remarkable skills are my capacity to work in teams and my ability to solve problems in a creative and autonomous way. I have developed both skills by volunteering in student associations and working as a leisure time monitor. I am fluent in written and spoken English that has allowed me to work in international research environment.



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