

ALEJANDRO BAREA MORENO | Curriculum Vitae

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SUMMARY

Mathematician and physicist specialising in mathematical biology. Currently working as a mainframe developer at Sopra Steria.

EXPERIENCE

JUNIOR DEVELOPER

Sopra Steria

Technical support and consultancy for mainframe systems and databases.

12/2024 - ...

Seville, Spain

RESEARCH INTERN

Institut de Biologie de l'École Normale Supérieure

Modelling and computing the transient response of the Poisson-Nernst-Planck model in cellular nanodomains

3/2024 - 9/2024

Paris, France

PUBLICATIONS

Journal articles:

- Paquin-Lefebvre F, **Barea Moreno A**, Holcman D. Voltage Laws in Nanodomains Revealed by Asymptotics and Simulations of Electro-Diffusion Equations.

EDUCATION

SORBONNE UNIVERSITÉ

M2 Mathématiques de la modélisation

Majeure Mathématiques pour la biologie

9/2023 - 9/2024

Paris, France

UNIVERSIDAD DE SEVILLA

Doble Grado en Física y Matemáticas

9/2018 - 6/2023

Seville, Spain

SORBONNE UNIVERSITÉ

ERASMUS Programme

9/2021 - 6/2022

Paris, France

UNIVERSIDAD DE SEVILLA

Collaboration grant

Collaboration with the Department of Numerical Analysis and Differential Equations on the numerical and mathematical analysis of models in neurophysics.

9/2022 - 6/2023

Seville, Spain

UNIVERSIDAD DE SEVILLA

Course

Applications of the structural stability framework to study community ecology.

11/2022

Seville, Spain

VOLUNTEERING

LIBRARY ASSISTANT

AIDA Books & More

Worked as a cashier and helped organising and cleaning the library

7/2020 - 8/2023

Jerez de la Frontera, Spain

EXAM SUPERVISOR

SAEM Thales

2018,2019

Seville, Spain

Supervised and assisted in the organization of the "CO+" mathematical olympiad exams in 2018 and 2019.

SKILLS

PROGRAMMING LANGUAGE FRAMEWORKS & TOOLS LIBRARIES LANGUAGES

Experienced: Python | COBOL **Familiar:** C | Javascript | SQL | Latex
Git | Excel | COMSOL | Linux | Matlab | Vim
matplotlib | pandas | numpy | sklearn
Native: Spanish | **Fluent:** English | French | **Intermediate:** German

HONORS & AWARDS

PREMIO EXTRAORDINARIO DE BACHILLERATO

Junta de Andalucía

Received the 1st place in Cádiz and the 4th in Andalusia

2018

MATRÍCULA DE HONOR DE BACHILLERATO

LAUDE El Altillo School

2018

CERTIFICATE OF OUTSTANDING ACHIEVEMENT AT "FORMULO DE INTEGREGO"

Euler Foundation

Certificate of outstanding achievement for excellent performance at the educational multidisciplinary summer camp "Formulo de Integrego" in Garbolovo Rusia, organized by Leonhard Euler International Charitable Foundation for Mathematics

2017

PARTICIPATION IN ESTALMAT

SAEM Thales

Selected for the project "Detection and Stimulation of early talent in mathematics" (ESTALMAT), in which I took part between 2014 and 2018

2014-2018

CERTIFICATIONS

CAMBRIDGE CERTIFICATE IN ADVANCED ENGLISH (C1)

Cambridge University Press & Assessment English

6/2016

DIPLÔME D'ÉTUDES EN LANGUE FRANÇAISE DELF B2

Ministère de l'Éducation nationale, de la Jeunesse et des Sports

1/2017

GOETHE-ZERTIFIKAT B1

Goethe-Institut

9/2022

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Dirección General de Tráfico

11/2023