

Juan Albahaca

Address: Sernanders Väg 8, 211, 75261 Uppsala Sweden

☎ +46 (076) 7964224 • ✉ juanalbahaca92@gmail.com

Bachelor of Science in the subject of Mathematics and a minor subject in Computer Science, currently a year from obtaining a Master's degree in Computational Science. My main fields of study are Scientific Computing, Machine Learning, Parallel Programming and Finite Element Methods.

Previous Employment

- **Mathematics teacher** **Caracas, Venezuela**
Private classes *January 2013–August 2014*
I taught mathematics at the levels of elementary school, high school and also did online private tutoring at undergraduate level covering more advanced topics such as Calculus, Analysis, Linear Algebra, Dynamical systems and others.
- **Music and guitar teacher** **Caracas, Venezuela**
Private classes *2009–2013*
I taught music theory and guitar to people from all ages. From scales, chords, harmony, rhythm, metric, basic sheet reading to composing and improvisation, using fun methods that adapt to the individual interests.

Education

Academic Qualifications.....

- **Uppsala University** **Uppsala, Sweden**
Bachelor of Science, *2014–2015*
Main subject: Mathematics. Minor in Computer Science.
- **Universidad Simón Bolívar** **Caracas, Venezuela**
Lic. Matemáticas Computacionales, *2009–2014*
Most of the credits were taken in this period, then I transferred to Uppsala University where I obtained the degree.
- **Colegio San Luis** **Caracas, Venezuela**
Elementary school, *1998–2009*
Middle school and High school.

Notable Projects & grants.....

- **Erasmus Mundus Scholarship**
I was granted a scholarship for a year in Sweden including all expenses and health insurance by the Erasmus Mundus association. This scholarship allowed me to finish my undergraduate studies in Uppsala University, where I am currently studying my Master's degree.

- **Bachelor's Degree Project:** *'Analytical and Numerical Study of the Poincaré Map with Applications on the Computation of Periodic Orbits'*

In this project I implemented the Runge-kutta 4, which is a very commonly used method for approximating solutions of ordinary differential equations. The idea was to create representations of a Poincaré Map with different problems, then show that it is a useful tool in the presence of limit cycles, and also because it reduces the dimension of the problem.

- **ASME Human Powered Vehicle**

I was part of a group of students representing the American Society of Mechanical Engineers in Simon Bolivar University. The project was to design and build a human powered vehicle resembling a bicycle, this by following certain requirements established by the association for participating in competitions with other universities around the world. I contributed with the advertisement of the project, the recollection of funds and restoring the old prototypes.

Technical and Personal skills

- **Languages:** Proficient in: Spanish, English. I have a level of A2 in Swedish.
- **Programming Languages:** Proficient in: C, C++, Python, Matlab, R, TeX.
- **Industry Software Skills:** Matlab (Advanced), R, MS Office.
- **General Business Skills:** I am comfortable working with a team, very good at solving problems, I can deliver good presentations.
- **Other:** I am very competitive, skillful and passionate. I have multicultural experience.

Interests and extra-curricular activity

- I have studied music since I was very little, I can play guitar and drums very well, I like to compose and arrange songs exploring my creativity by producing new and interesting work. This also applies to how I approach science, I certainly like to think outside the box.
- I am a very athletic person, I like to play many sports such as football, golf, between others, and have practiced some with a high lever of dedication. I took Karate classes for over 6 years when I was a kid, obtaining a black belt in the branch of "shito ryu".

References

- **Jordi Lluís Figueras** *Associate Senior Lecturer in the department of Mathematics, University of Uppsala.*
Email: figueras@math.uu.se
- **Emilio Mendoza** *Profesor titular jubilado, Departamento de Ciencias Sociales, Universidad Simón Bolívar, Caracas, Venezuela.*
Email: emiliomen@gmail.com