Matias Pablo Borghi Orue

MSc. Physics

12 August 1991
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Education

MSc. Science in Physics |
School of Exact and Natural Sciences
National University of La Plata | 2017

Skills

Technical:
- Python, R, Fortran, C#, Julia
- HTML, CSS, JavaScript, React, GraphQL, Node.js
- LaTeX, Git

Personal:
- *Teamwork*: Given my work experience I think teamwork is the best tool you can have to get the results you want to achieve.
- *Self management*: Given different tasks to developed on my own I achieved beyond expectations.
- *Willingness to learn*: Newer tasks are frequently developed without prior knowledge but that is not a barrier.
- *Problem solving*: How to solve a problem should not be a problem. We should be focusing in getting the best approaches.

Hobbies

- Playing Violin
- Learning French
- Playing Football
- Cycling

Languages

- Spanish: Native
- English: Fluent
- French: Intermediate

Work Experience

Since Mar'19 — Sr. Quantitative Analyst — Crisil Irevna Argentina S.A., Buenos Aires, Argentina
Research and development of software for pricing and risk management Equity and Hybrid exotic financial derivatives using Monte Carlo engine. Our stack includes back-end technologies such as Python and Julia as well as front-end technologies like React.js and others while communicating through GraphQL APIs.

Aug17' - Feb'19 — Quantitative Analyst — Crisil Irevna Argentina S.A., Buenos Aires, Argentina
Pricing and Risk Management Equity and Hybrid (IR/FX/COMM) exotic financial derivative models for a Tier-1 US Investment Bank.
Responsible for creating technical documentation and generating executive summary reports in LaTeX. Creation and execution of Benchmark, Limiting Cases and Stability tests, among others, were also coded in C#.

Sep'15 - Sep'17 — Teaching Assistant — National University of La Plata, Buenos Aires, Argentina
Responsible for teaching fundamental physical concepts such as Classical Mechanics and Electromagnetism to undergraduate students

Research and Projects

Jul'17 — MSc. Physics Thesis
Master thesis final project titled Study of phase transitions of an Ising-type model with spin oriented dependent interaction parameter. The software was coded in Fortran.

Dec'14 — Kerr Black Holes
Work done as the final project of the course entitled Introduction to General Relativity about Kerr Black Holes.

Nov'14 — ALAMBRE Project
Final project done for the course Computer Simulations. It consists in simulating both the High Energy Cosmic Rays and the 30m radio telescope located in the IAR(Argentine Institute of Radio Astronomy), Buenos Aires, using Monte Carlo methods with the final goal set to determine if the antenna could detect the radio emission from the cascades.

Jan-Nov'09 — Hexapod Robot
This project was done during 2009 for my high school's science fair with my brother. It consisted in creating the whole robot chassis and simulating its movements for each one of the three motors for the whole six legs. The software was coded in Basic.

Achievements

Oct'09 — Best High School Projects
Second place for best high school projects at National University of La Matanza

Feb'09 — Best High School GPAs
Received scholarship for having one of the best GPAs in high school.