Matias Borghi

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Education

National University of La Plata (UNLP) 2010 – 2017
MSc. Science in Physics *La Plata, Buenos Aires, AR*

Experience

CRISIL an S&P Global Company Mar. 2017 – Present
Sr. Quantitative Analyst *Buenos Aires, AR*

- Working in a research and development team for pricing and risk management Equity and Hybrid Exotic financial derivatives using Monte Carlo simulations.
- Responsible for creating a rapidly working prototype by designing the front-end interface using React.js and communicating via GraphQL APIs.
- **Technologies used**: Python in the beginning but code was migrated to Julia Lang.

Aug. 2017 – Feb. 2019
Quantitative Analyst *Buenos Aires, AR*

- 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.
- **Technologies used**: Mainly working with Excel and C♯.

National University of La Plata (UNLP) Sep. 2015 – Sep. 2017
Teaching Assistant *Buenos Aires, AR*

- Responsible for teaching fundamental physical concepts such as Classical Mechanics and Electromagnetism to undergraduate students.

Reseach and Projects

Msc. Physics Thesis Jul. 2017

- Master thesis final project titled *Study of phase transitions of an Ising-type model with spin oriented dependent interaction parameter*.
- **Technologies used**: Fortran and Gnuplot.

Kerr Black Holes Dec. 2014

- Work done as the final project of the course entitled *Introduction to General Relativity* about Kerr Black Holes.

ALAMBRE Project Nov. 2014

- Final project done for the course *Computer Simulations*. It consisted in simulating both the High Energy Cosmic Rays and the 30m radio telescope located in the Argentine Institute of Radio Astronomy IAR using Monte Carlo methods with the final goal set to determine if the antenna could detect radio emission from those cascades.

- This work was presented as a poster at the 100 Annual meeting of the *Argentine Physics Association* AFA from 22 to 25 of September 2015 in Villa de Merlo, San Luis, Argentina.
- **Technologies used**: Mainly C++ and R.

Hexapod Robot

Nov. 2009

- This project was done with my brother during my last high school year and was presented during the annual 2009 science fair.
- It consisted in creating the whole robot chassis and simulating its movements for each one of its 18 servomotors.
- The project was awarded the 2nd place for best high schools projects at the National University of La Matanza UNLAM.
- **Technologies used**: Basic.

Hobbies

Playing Violin Started learning since 2017 and I track my progress in a web page with the goal of motivate adults like me.

Cycling and Swimming My goal is to participate in an Ironman competition in the near future.

Languages

Spanish Native

English Fluent

French A2