



# CAIO LAGANÁ FERNANDES

Ph.D Physicist  
Developer

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 São Paulo, Brazil linkedin.com/in/caiolagana

## SUMMARY

Possess Ph.D. in High Energy Nuclear Physics at the European Organization for Nuclear Research (CERN). Awarded the Best Doctorate Thesis Prize by the Brazilian Physical Society in 2020. Experienced in programming languages, software development and data analysis.

## SKILLS

<b>Portuguese</b> (native)	Ability to understand complex systems and work out efficient solutions to intricate problems
<b>English</b> (fluent)	
<b>Italian</b> (fluent)	
<b>French</b> (functional)	
<b>German</b> (beginner)	

## PROJECTS

C++	<b>Hypernuclei Search at CERN</b> This C++ project was written as part of my Ph.D program. It searches for the $\Lambda nn$ and $\Lambda pn$ hypernuclei in high-energy Pb-Pb collisions at the Large Hadron Collider. The script was ran over thousands of terabytes of data at CERN's computing infrastructure.	<a href="https://github.com/caiolagana/LnnTreeCreator">https://github.com/caiolagana/LnnTreeCreator</a>
Visual C#, SQL	<b>Hydroelectric Power Plant Simulator</b> Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris.	<a href="https://github.com/caiolagana/PowerPlantSimulator">https://github.com/caiolagana/PowerPlantSimulator</a>
Python, AngularJS	<b>AI Analysis of Legal Documents</b> Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris.	<a href="https://github.com/e-fluxus/ia">https://github.com/e-fluxus/ia</a>

## FORMAL EDUCATION

2013 - 2017	<b>Doctorate in Physics</b> University of São Paulo (USP) with one-year exchange program at European Organization for Nuclear Research (CERN). <i>Title:</i> Evidence for the existence of the $\Lambda nn$ hypernucleus with the ALICE detector	USP/CERN
2010-2012	<b>Master's in Physics</b> State University of São Paulo (UNESP) <i>Title:</i> Femtoscopia de colisões próton-próton no detector CMS do Large Hadron Collider	UNESP
2006-2010	<b>Bachelor's in Physics</b> Scholarship from Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq)	USP

## COMPLEMENTARY EDUCATION

2012	<b>Excellence in Detectors and Instrumentation Technologies</b> Fermi National Accelerator Laboratory, Illinois (US)	Fermilab
2012	<b>Short Term Course in Laboratory Techniques</b> Brookhaven National Laboratory, Upton (US)	BNL
2010	<b>Short Term Course in Data Analysis Tools at CERN</b> European Organization for Nuclear Research, Meyrin (Switzerland)	CERN

## EXPERIENCE

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PUBLICATIONS

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