

MATHEUS HOSTERT

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Interested in research, data science, and software development. Strong background in Python and C++ programming languages. Demonstrated creative problem-solving, leadership, and great communication skills. I thrive on teamwork and tackling new ambitious challenges.

Technical Skills

Programming skills — Has developed several small and medium-sized projects in Python and C++ programming languages, including open-source tools for Particle Physics applications. Extensive knowledge of object-oriented programming. Made a few contributions to large-scale open-source projects in the field.

Data Analysis and Statistics — Experience with statistical modeling, hypothesis testing, and probability theory. Expert in data analysis with Numpy and Pandas, and familiar with TensorFlow and PyTorch. Also an expert in Microsoft Excel and Mathematica.

Visualization — Advanced data visualization skills. Expert in Python's Matplotlib and Dash for graphs and dashboards.

Git — Extensive experience with collaborative Git projects using GitHub and GitLab, including software packaging and deployment.

Unix — Extensive experience with Bash on Linux and Darwin Unix operating systems.

Core Competencies

Leadership — Led dozens of research projects, mentored six graduate students, and led several community white papers. Chaired two international and four national conferences. Co-mentored six graduate students.

Problem-solving — As demonstrated through multiple academic achievements in theoretical physics and successful career progression therein.

Communication — Over 60 talks at international conferences and institutions. Has also engaged with high-school students, teachers, and the general public in outreach events.

Writing — Extensive experience writing scientific and technical articles. Proficiency in Latex and Microsoft Word. Published over 30 peer-reviewed articles in internationally-renowned journals.

Languages — Fluent in English and Portuguese, and basic knowledge of Spanish.

Positions

Post-Doctoral Researcher — Perimeter Institute

Oct 2019 — Present

Joint appointment with the University of Minnesota.

Developing computer simulations of complex physical systems, analyzing experimental data with statistical methods, leading graduate and master-level students, and presenting results at international conferences. Experience with working under time pressure and meeting deadlines.

Education

Receipt of excellence-based scholarship for partial undergraduate and full Ph.D. at Durham University, UK.

Ph.D. in Theoretical Physics – Durham University, United Kingdom

Oct 2015 — Sep 2019

B.S. in Physics – Federal University of Santa Catarina, Brazil

Mar 2011 — Jun 2015