Rafael Eduardo Perez

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EDUCATION

Ludwig Maximilian University of Munich — Munich, Germany

MSc. Physics *GPA: 1.45* — Oct 2020 - May 2023

- Graduated with highest degree classification.

- Courses taken include: Deep Learning for Physicists, Collaborative Software Development, Advanced Quantum Mechanics and various other theoretical physics courses.

- Skills acquired or developed: Effective programming in Python, Mathematica and C++, version control through Git, understanding and developing ML models, mathematical and statistical analysis, complex problem solving and reliable research techniques.

University of Glasgow — Glasgow, United Kingdom

BSc. (Hons) Theoretical Physics *GPA: 17.8/22* — Sept 2017 - Jun 2020

- Graduated with First Class Honours.

- Courses include: Magnetism and Superconductors, Lasers and Non-linear Optics, Mathematical Methods I & II, Linear Algebra, Multivariable Calculus, Introduction to Real Analysis and Physics P2T: Programming under Linux.

- Scientific and organisational skills: Complex problem solving, research and data analysis, planning and executing projects(year long), organizing team work in order to complete assigned work, programming in multiple languages (C++, Matlab & Shell).

Glasgow International College — Glasgow, United Kingdom

Foundation Certificate 2 Terms in Science *GPA: 16.94/22* — Sept 2016 - May 2017

- Passed with distinction. Foundation year in preparation for the University of Glasgow.

Colegio Tilatá — Bogotá, Colombia

High School Diploma *GPA: 4.13/5* — Aug 2002 - Jul 2016

- Honour graduate for performance in final years. Colombian state exam score (ICFES) 413/500.

WORK

Max Planck Institute for Physics — Munich, Germany

Student Assistant for the Quantum Field Theory Group — Oct 2021-May 2023

- Responsible for implementing computational methods at the institute for researchers to use.

- Roles and responsibilities included: Modifying cutting edge software for new applications for group members, developing a guide for computational resources available for the group (Access to powerful computers via SSH and also remote access to supercomputers), developing software for research purposes and producing a reliable data set for ML training.

CERTIFICATIONS

Google Professional Certificate — Coursera

Professional Certificate in Data Analytics — Jun 2023-Aug 2023

- Introduction into data analysis tools and methods.

- Skills developed: Working with Spreadsheets (Google Sheets), relational databases (SQL, BigQuery), Tableau and R programming.

SKILLS

- Highly skilled in C/C+ and Python. Multiple courses/labs and projects relied of developing software with these languages. Continued through personal study.

- Familiar with GitHub and GitLab. Used in various projects for software development.

- Proficient in Matlab and Mathematica. Mathematical tools developed for physics programming.

- Skilled in LaTex. Software to write reports and presentations.

Languages

- Native Spanish speaker.
- Fluent in English, C1 level.