

# Matias Bettera Marcat

## Physicist

Last update: January 16, 2024

Up-to-date version of CV is available at

<https://mbetteram.github.io/online-resume>

Fortran	●●●●	C	●●●●	Bash/Shell scripting	●●●●	gnuplot	●●●●	Python	●●●●	numpy	●●●●
matplotlib	●●●●	seaborn	●●●●	jupyter	●●●●	Git/Github	●●●●	scikit-learn	●●●●	tensorflow	●●●●
ssh	●●●●	SQL	●●●●								

English poet, playwright and actor, widely regarded as the greatest writer in the English language and the world's pre-eminent dramatist. Often called England's national poet and the "Bard of Avon". My extant work is including collaborations, consist of approximately 38 plays, 154 sonnets, two long narrative poems and a few other verses, some of uncertain authorship.

## Professional Experience

Mar 2023 - Present

### Proffessor

[Universidad Empresarial Siglo 21](#) is a bussiness oriented private university. I am proffessor of theorectical and pobleml clases of many mathematics courses, statcis and physics.

- **Distance courses (two months period): Physics, Statics, Mathematical Analisis, Algebra.** - Presential intensive courses (two months period): Mathematical Analisis, Statistics II. - \_\_ Presential courses (four months period): Mathematical Analisis.

May 2023 - Sep 2023

### Monitoring teacher

My role at [Data science diploma, at FAMAF-UNC](#) consisted in the monitoring, advising and evaluation of assignments, of four groups of four people each.

Python jupyter numpy pandas matplotlib seaborn SQL scikit-learn tensorflow Git

Mar 2022 – Present, Mar 2016 - Jul 2016

### Lecturer \_(Profesor Ayudante de Priemra.)\_

Lecturer for problem classes. Evaluation of midterm and final examns.

- **2nd sem 23** Thermodynamics and Statistical Mechanics II and Modern Physics I
- **1st sem 23** Thermodynamics and Statistical Mechanics I and Physics 4 (Modern Physics)
- **2nd sem 22** General Physics III (Electricity and Magnetism).
- **1st sem 22** Thermodynamics and Statistical Mechanics I.
- **1st sem 16** General Physics IV (Waves and Optics).

Residence	🏠 <a href="#">Cordoba</a>
ResumeOnline	<a href="#">Resume Online</a>
LinkedIn	🌐 <a href="#">sneas</a>
GitHub	🐙 <a href="#">sneas</a>
Mobile	📞 <a href="#">+31645223717</a>
Email	✉️ <a href="mailto:bettera.marcat@gmail.com">bettera.marcat@gmail.com</a>

March 2022 – Feb 2023

## Lecturer \_(Profesor Ayudante B D.S.)\_

Lecturer for problem classes. Evaluation of midterm and final exams.

- **Feb 22** Admission and introductory course.
- **2nd sem. 22** Mechanics
- **1st sem. 22** Admission and introductory course.

Apr 2014 – Feb 2017

## Research

**Research fellowship**, granted by CONICET. (*Beca Interna Doctoral de CONICET*)

Research on active matter, particularly sperm dynamics in confined environments, with simulations and experimental data analysis.

*(Investigación sobre materia activa, en particular dinámica de espermatozoides en ambientes confinados, con simulaciones y análisis de datos experimentales.)*

Data analysis

Modeling

Simulation

Active Matter

Biophysics

Aug 2014 – Jul 2015, Aug 2012 – Jul 2013

## Student assistant \_(Alumno Ayudante de Segunda D.S.)\_

Student assistant for problem classes. - **1st sem 15** Electromagnetism I - **2nd sem 14** General Physics I (Introduction to Mechanics) - **1st sem 13** Mechanics - **2nd sem 12** Electromagnetism I

## Education

Data Science and its applications diploma (FaMAF, UNC) [2020]

PhD in Physics, research on Dynamics of microconfined swimmers. Mathematics, Astronomy, Physics and Computer Science school, UNC, AR. ( Doctorado en Física. FaMAF, UNC. Investigación: Dinámica de nadadores microconfinados, FaMAF, UNC ). [2016 - Present]

PhD Courses: Numerical Methods in Astrophysics, Computational Physics, Fluid Mechanics, Topics in Mathematical Biology, Introduction to LAMMPS code.

B.S. in Physics, Final grad work: Simultaneous uptake model of water and nutrients by crop roots. Physics department, UNRC, AR. ( Licenciatura en Física, Trabajo Final: Modelo de toma simultánea de agua y nutrientes por raíces de cultivos. UNRC ) [2010 - 2016]