Emiliano Aparicio

Bioengineer

emilianojaparicio@gmail.com | Mendoza, Argentina | Portfolio | LinkedIn

Profile

Bioengineer (PhD candidate) with a background in research, front-end web developer, teacher, and video game designer.

Experience

04/2016 – 08/2025

Professor of Mathematics and Physics, *Private Lessons* — Godoy Cruz, Mendoza
I provide private tutoring, both in person and virtually, for all subjects in mathematics and physics, at levels ranging from high school through university.

Calculus II Professor, — Mendoza, Mendoza
University of Mendoza, 2nd-year Engineering
My role involves teaching the theoretical and practical sessions, handling student inquiries, and administering exams for a third of the student body.

Founder, *Oblivion Mechanics*
I founded a game design company, where I currently invest my time as a designer, developer, prompt engineer, and administrator for our first project: Univearth

Front-end Developer, *CityHeroes*
I worked as a front-end developer for 2 years (React, TypeScript, CSS, Tailwind, Figma, and Storybook). After the first year, I took on semi-senior-level responsibilities.

Doctoral Scholarship, *CONICET*
I was awarded a doctoral scholarship from CONICET that supported my 6-year research career, resulting in 8 papers published in international journals.

Physics Professor,
University of Mendoza, Kinesiology Pre-university Course
I taught theoretical and practical physics classes and administered exams for the Kinesiology pre-university course over a period of 3 years.

Biomaterials Professor,
University of Mendoza, 4th-Year Bioengineering
For three years, I taught both the theoretical and practical components of the Biomaterials course as an ad-honorem adjunct professor.

English/Spanish Translator, *Vatsana Technologies*
I worked as a freelance translator for 1.5 years, translating written content from English to Spanish for a company in India.

Education

06/2022 – 09/2022 **Full Stack Web Developer,** *Henry*
I am a graduate of the "Henry" Bootcamp (+800 hours over 4 months) and have served on their team as a Teaching Assistant (TA).

04/2016 – 03/2022 **PhD in Engineering,** *University of Mendoza* — Mendoza, Argentina
PhD Candidate in Engineering (Materials), specializing in computational simulations. I have 8 publications on atomic-scale calculations, including the development of software for computational analysis.

03/2010 – 03/2016 **Bioengineer,** *University of Mendoza* — Mendoza, Argentina
I graduated as a Bioengineer from the University of Mendoza, where I was a National Standard-Bearer 2014. I was also awarded a gold medal and the prize for the best engineering graduate by the National Academy of Engineering.

Languages

Spanish
Native

English
Advanced level (C2): EFSET
https://www.efset.org/cert/e5Sioa

Publications

2024 **How crack twisting in bouligand structures lead to damage delocalization and toughening,** *Extreme Mechanics Letters*
https://doi.org/10.1016/j.eml.202.102190

2023 **Nanoporous Amorphous Carbon with Exceptional Ultra-High Strength,** *Nanomaterials*
https://doi.org/10.3390/nano1308129

2022 **Inducing a topological transition in graphene nanoribbon superlattices by external strain,** *Royal Society of Chemistry*
https://doi.org/10.1039/D2CP00038E

2021 **Strain and Stress Distribution of Bulk Metallic Glasses at High Strain Rate,** *Mecánica Computacional*
http://venus.ceride.gov.ar/ojs/index.php/mc/article/view/6218

2020 **Simulated mechanical properties of finite-size graphene nanoribbons,** *IOPScience*
https://doi.org/10.1088/1361-6528/abc036

2020 **FoamExplorer: Automated measurement of ligaments and voids for atomistic systems,** *Elsevier*
https://doi.org/10.1016/j.commatsci.2020.10992

2018 **High strain-rate loading of nanofoams,** *APS March Meeting Abstracts*
https://ui.adsabs.harvard.edu/abs/2018APS..MARP38007B/abstract

2018 **Mechanical properties of Au foams under nanoindentation,** *Elsevier*
https://doi.org/10.1016/j.commatsci. 2018.02.019