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Marital Status: Single
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Miguel Angel Rosas Villalobos

Curriculum Vitae

Work Experience

January 2025 – Present **CFD Simulator**, *Kendel*.
Performing simulations of brine discharges in marine environments using OpenFOAM. Developing technical reports on the simulations and automating processes using Bash scripts to optimize execution and data analysis.

December 2024 – January 2025 **Mechanical Analyst**, *Hibring*.
As a Mechanical Analyst, my main focus is applying advanced Mechanical Engineering knowledge to industrial processes with high physical relevance. I use specialized tools, especially computational fluid dynamics (CFD) simulations, to analyze and optimize complex systems.

July 2021 – Present **Teaching Assistant**, *Universidad del Bío-Bío*.
Supporting the teaching of practical sessions and theoretical classes in subjects such as Fundamental Physics, Statics, Programming, and CFD. In the last year, I have specifically assisted Master's students in Mechanical Engineering in advanced CFD and Mathematical Methods courses.

Supervisor : **Fabián Pierart**, *Lecturer, Department of Mechanical Engineering* (Website)

Education

2020–2024 **Bachelor in Engineering Sciences, Mechanical Engineering major**, *Universidad del Bío-Bío*.

Publications and Conferences

Journal Articles

2023 **Shadman, Milad et al.** A review of offshore renewable energy in south america: Current status and future perspectives. *Sustainability*, volume 15, 2023.

Conference Presentations

2024 **Miguel Rosas, Fabián Pierart, and Joaquín Fernández**, *Oral Presentation*, Optimization of Porous Media in Wave Banks to Reduce Flumes Reflection Using Numerical Simulation, At *XVI CIBIM - 2024, Concepción*.

2024 **Miguel Rosas, Fabián Pierart, and Joaquín Fernández**, *Poster*, Optimization of Porous Media in Wave Flumes to Reduce Wave Reflection Using Numerical Simulation, At *Chilean Physics Symposium - 2024, Temuco*.

Computer Skills

Programming: Bash, Julia, MATLAB, Python
Documents: LaTeX, Word, PowerPoint
Simulation: OpenFOAM, Salome, Ansys-CFD
OS: Linux, Windows