

# Martín Achondo Mercado

MSc. Mechanical Engineer

## Summary

Mechanical Engineer with a Master of Science degree in Mechanical Engineering.

I have 1 year of experience working on engineering projects for the chemical industry, covering from studies to conceptual, basic, and detailed engineering stages.

Currently working as a Consulting Engineer, providing engineering services to Oxiquim S.A.

I have strong teamwork skills and the ability to lead multidisciplinary projects, with a strong motivation to research, learn, and contribute to large engineering projects, especially in the energy, oil&gas, chemical, and mining sectors.

## Contact Info.

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[Martín Achondo Mercado](#)

[@MartinAchondo](#)

Concón, Chile

## Languages

- Spanish - Native
- English - Advanced

## Softwares

OpenFOAM Ansys Inventor AutoCAD  
DWSIM ALOHA Excel Git

## Programming Languages

Python Matlab VBA JavaScript Fortran  
SQL PLC C++

## Other Interests

- Football, playing for Old Macks FC.
- Padel, Tennis.
- Craft beer brewing.

## Education

2023-2024

### Master of Science in Mechanical Engineering

*Universidad Técnica Federico Santa María*

Research in Molecular Electrostatics modeling using PINNs, Physics-Informed Neural Networks, with direct application in Biophysics and Engineering.

Recipient of the ANID Master's Scholarship. Presented at the international conference WONAPDE 2024.

2018-2023

### Mechanical Engineering

*Universidad Técnica Federico Santa María*

Included in the Honor Roll. Awarded the Academic Merit Prize in 2020, 2021, and 2022, and the 2018 Admission Scholarship

2004-2017

### Alumnus

*The Mackay School*

Awarded the bilingual IB diploma with distinction.

## Experience

2023-Actual

### Consulting Engineer (Mechanical - Process)

*Oxiquim S.A.*

Currently working as an Engineering Consultant, providing engineering services to Oxiquim S.A. at their marine terminals, production plants, and distribution centers.

I have conducted technical and economic feasibility studies, technology research, calculation reports, efficiency studies, operation manuals, among other tasks. Key projects include a new CO2 capture project from exhaust gases, a VRU Plant project for gasoline vapor recovery, an RTO Plant for chemical vapor combustion, and the study of all 2024 investments.

2023

### Professional Internship

*Oxiquim S.A.*

I completed my professional internship in the Engineering Department at the Quintero Maritime Terminal. I primarily worked on the following projects: the VRU Plant and the evaluation of equipment and processes in the RPU unit of the LPG tank. Additionally, I prepared calculation reports for the pressures and filling capacity of tanks, as well as their positioning to reduce radiation from potential ignition.

2020 y 2022

### Application Developer

*Independent*

I have developed applications related to inventory and dispatch management, customer loyalty, process automation, and databases. This work was applied to retail stores.

2018-2022

### Academic Assistant and Private Tutor

*UTFSM & Independent*

I have been an academic assistant and private tutor in subjects such as Physics, Mathematics, Chemistry, and career courses like Thermodynamics, Fluid Mechanics, and Mechanics of Materials.

## Knowledge and Skills

- Science:** Proficiency in Fluid Mechanics, Thermodynamics, Heat Transfer, and Solid Mechanics.
- Engineering:** Project evaluation. Assessment of thermal systems and process plants. Selection of turbomachinery and thermal machines. Stress analysis and mechanical design. Structural and mechanism analysis. Design of automation systems. Calculation of tanks and piping systems. Numerical simulations, FEM and CFD, and custom codes.