Teich, Juan Ignacio

📍 Buenos Aires, Argentina

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✉ juanignacioteich@gmail.com

📅 25 years old

⚙ Mechanical Engineer

🚩 Argentinian and Spanish citizen

PROFESSIONAL OBJECTIVES

Continue my professional career in Europe pursuing challenging projects and applying the skills acquire through my journey so far, while developing new skills and tools.

I aim to focus on fluid simulation and it's development, working on taking key mathematic and physics concepts into code to adress and better understand industry problems, while always trying to break new ground.

WORK EXPERIENCE

NUCLEOELÉCTRICA ARGENTINA S.A.

December 2024 – Present

Thermohydraulic Design Engineer

Nucleoeléctrica Argentina S.A.

Perform therohydraulic calculations and simulations to insure the safety and operation of the Atucha I and II Nuclear Plants.

Main tasks:

- Develop a Method of Characteristics program to simulate incompressible and compressible flow in pipe systems, and capturing water hammer phenomena.
- Perfom CFD simulations to analyze key accident events.
- Research on new simulation methodologies to expand the capabilities of the Thermohydraulic Design Department.

Skills and tools:

- ANSYS Fluent, CFD, C++, Fluid Dynamics, Heat and Mass Transfer, Method of Characteristics, Python.

CONICET CSC

April 2024 – August 2024

Mechanical Engineering Thesist

Grupo de Energías Renovables - CSC - CONICET

I completed my Mechanical Engineering Thesis titled: 'Parametric study of actuator discs for wind turbine simulation' (link to thesis in spanish).

Main tasks:

- Carry a bibliographic research on actuator discs models for wind turbine simulation.
- Develop the researched models' algorithms into OpenFOAM as a new source term.
- Run simulations in CONICET's cluster TUPAC.
- Generate multiple plots and metrics for comparing the actuator disc models performance in simulations.

Skills and tools:

- OpenFOAM, Fluid Dynamics, snappyHexMesh, Python, Object Oriented Programming, Bash, Linux, Algorithms, C++, LaTeX, SSH, HPC, GitHub

Numerical Simulations Specialist

STÄMM Biotech

October 2023 – April 2024

Responsabilities:

- Enhance meshing strategies for complex repetitive structures.
- Develop and run CFD simulations to validate and further improve existing in-house indirect simulation models.
- Elaborate post-processing scripts, for various types of OpenFOAM simulations and python simulation scripts.
- Formulate OOP code to further develop in-house indirect simulation model.

Skills and tools:

- OpenFOAM, Code_Saturne, Fluid Dynamics, snappyHexMesh, Salome Geometry and Meshing modules, Python, Object Oriented Programming, Bash, Linux, Algorithms, C++, LaTeX, GitHub

Junior Project Engineer

Saint-Gobain Argentina

November 2022 – October 2023

Responsabilities

- Lead strategic projects, including analyzing the company's needs for business continuity, basic project design, and implementation.

Teaching Assistant in Thermodynamics course

Faculty of Engineering, University of Buenos Aires

Mechanical Engienering Department

March 2020 – March 2021

EDUCATION

Mechanical Engineering

Faculty of Engineering, University of Buenos Aires

2017 – 2024

- Thesis - Parametric study actuator discs for wind turbine simulation.
  - CSC - CONICET - Argentina.
  - Link to thesis in spanish.

Bilingual High School

Colegio Holy Cross

2011 – 2016

SKILLS

Languages

English - fluent

- IGCSE Certificates, Cambridge University