# DATA SCIENTIST – MACHINE LEARNING ENGINEER

## Full Time Position

**Reference**          **: CH_JOB_20_05_SC**
Publication Date     : 2020-10-22
Activities              : CFD – Hydrodynamics - R&D – Yacht, appendages and propulsion design
Education Level      : Master or PhD
Duration              : Full Time Job
Seniority             : More than 4 years of experience.
Start date            : January 2021
Location              : Valencia, Spain
**Answer to**           **: jobs@caponnetto-hueber.com**

## 1. Caponnetto-Hueber Presentation

Background:

Caponnetto-Hueber is an innovation and technological laboratory specialized in fluid dynamics and energy efficiency. The company provides naval architecture solutions, innovative concepts, fluid dynamics services and products for the maritime world.

Caponnetto-Hueber main topics of expertise are hydrodynamics, aerodynamics, shapes optimization and numerical simulations (CFD i.e. Computational Fluid Dynamics).

Caponnetto-Hueber has been involved with America's Cup for more than 2 decades and has won it several times.

Services:

Caponnetto-Hueber provides innovative services in fluid dynamics, using high-end methodologies and tools for naval architects, yacht designers, shipyards and ship owners to improve design, performances and efficiency, to lower consumptions and emissions.
- Innovative Concepts
- Design
- Naval Architecture
- Foiling Yachts
- Computational Fluid Dynamics (CFD)
- Hydrodynamics
- Aerodynamics

Main current projects:
- Innovative concepts and solutions
- Flying electric boat design and flight control
- Mega-yachts hydrodynamics and CFD
- Propellers design and hydrodynamics
- Racing and cruising sailing yachts hydrodynamics and CFD
- America's Cup (36th AC)
- R&D

The company is currently expanding its workforce and is willing to integrate motivated and hardworking professionals who want to work in a competitive, high-technological and international sector.

The design office is located within the Marina of Valencia, Spain.

# 2. Collaborator Profile

In order to develop new design and analysis tools, the company is looking for multi-physics scientist with a strong background in Mathematics, Data Science, Machine and Deep Learning who is eager to apply computer sciences to the nautical and the maritime industry.

Profile:
- Master or PhD in one of the following fields:
    - Mathematics, Computer / Data Science, Machine and Deep Learning, Computational Fluid Dynamics
    - or a field relevant to the job duties mentioned.

Experience:
- More than 2 years of experience of architecting and developing machine learning tools and deep learning models.
- It is not compulsory to have experience in the field of the naval architecture, marine industry but a minimum of experience or knowledge in the fluid dynamics is necessary.

Description:
- You will develop and implement Machine and Deep learning technics and algorithms to develop new simulation and optimization tools **(Development).**
- You will improve, develop and integrate new tools, fluid dynamics codes, optimization algorithms and programs, performance prediction tools and methods, data viewer and data management tools **(CFD Development).**
- You will use your technical, analytical and coding skills to develop or improve in-house codes, simulation software and web platforms. (**Software Development**).
- You will be in charge of the quality, the standards, the testing, the versioning and deployment of the different tools and programs (**Quality Control**).
- You will be coordinating the different development projects which are done internally and externally **(Coordination**).

Qualifications:
- Machine and Deep Learning
- Neural network training
- Big Data
- Numerical methods
- Optimization methods
- Programing and scripting
- Proficient with Python
- Knowledge of modern software development best practices
- Some experience with data science tools including Python scripting, numpy, scipy, matplotlib, scikit-learn, jupyter notebooks, bash scripting, Linux environment.

Technical Requirements ("MUST"):
- Python
- Java or C++
- Shell Scripting
- Database and Data Manipulation Language.

Technical Skills Appreciated ("PLUS"):
- HPC
- AWS
- IT

- Simulation Engineering
- Graphics and Data visualization
- Web Dev and JavaScript
- Git Management

Other Requirements ("MUST"):
- English is compulsory as it is the working language at the office.
- **Rigorous, precise, hard-worker, to maintain the quality standard of the group.**
- Autonomous and responsible to be fully in charge of your own projects.
- Curious, passionate, eager to learn and to push your knowledge.
- Humble and able to work within an international team.
- Open-minded with the ability to adapt to innovate.
- Willing to deliver and manage projects in a timely manner.
- Eager to apply hard sciences to the naval industry.

Due to the nature of our work and the level of excellency that we need to maintain and always increase as a group, we look for engineers / scientists who are passionate, have a very strong academical background and clear understanding of the physical phenomena, eager to learn and develop new competences, who are pro-active and make things happens, are not afraid of challenge and are willing to push themselves to be the best individually and collectively, who are team players and are able to share their knowledge and their motivation with the group, are open-minded, creative, curious and responsible of their projects and tasks, who wants to push technology to the limits and who are willing to be part of an very international group who aim to be the leader in innovation and technology in the nautical and maritime industry.

Contact us at **jobs@caponnetto-hueber.com** using the offer reference in the tittle and include your **CV and references in English are mandatory**