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ESCUELA TÉCNICA SUPERIOR DE INGENIERÍA AERONÁUTICA Y DEL ESPACIO

Research Engineer

Machine learning to accelerate Computational Fluid Dynamics

Job description

We are looking for a highly skilled engineer to work on acceleration techniques for high order discontinuous Galerkin methods for fluid dynamics. This position will combine computational fluid dynamics with machine learning to accelerate complex applications related to aircraft, wind turbines and aeroacoustics.

The project requires a knowledge of numerical techniques for fluid dynamics (CFD), HPC and machine learning techniques.

We are looking for a highly motivated and dynamic researcher to join Prof. Ferrer's team (https://sites.google.com/site/eferrerdg/) at the school of aeronautics ETSIAE-UPM in Madrid, Spain. The successful candidate will have good communication and analytical skills, and should be able to work independently and also collaborating with a team.

Required qualifications

Mandatory technical skills and experience:
- **Background:** engineering, applied mathematics or physics.
- **Required knowledge**: Computational Fluid Dynamics, Machine Learning (Neural Networks, Reinforcement Learning, etc.)
- **Skills:** Excellent computational skills: Fortran, Python, Machine Learning (e.g., Keras).
- **Additional knowledge**: wind turbines, aeroacoustics is beneficial.

Language skills:
- Fluent in English.
- Spanish is advantageous.

What do we offer?

A competitive salary for 18 months (initially but can be extended). We also offer to work in a stimulating, young and multicultural environment, and to be part of a dynamic and growing research team.

How to apply?

Please send your CV, marks and references, to esteban.ferrer@upm.es quoting the reference **Research_CFD_ML_2022** before **25th of January**