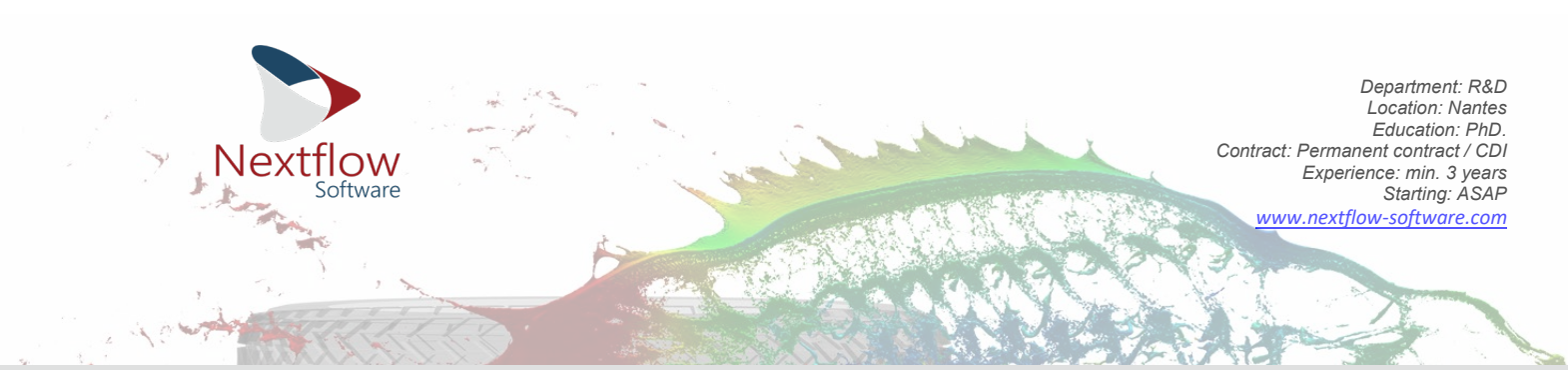

Department: R&D
Location: Nantes
Education: PhD.
Contract: Permanent contract / CDI
Experience: min. 3 years
Starting: ASAP
www.nextflow-software.com

R&D CFD Engineer (SPH method)

Subsidiary of Siemens Digital Industry Software, Nextflow Software, is a Software Vendor headquartered in Nantes, France.
Nextflow develops and sells advanced Computer-Aided Engineering (CAE) software in the field of Computational Fluid Dynamics (CFD)

Nextflow Software addresses engineering companies developing and manufacturing products/systems and equipment involving fluid flows, potentially with complex geometries and interactions with solids (e.g. moving parts, deformations), in the field of automotive, aerospace, marine, and many other industries.

Thanks to its talented team of researchers and engineers, and based on more than 10 years of close partnership with leading academic research laboratories from Ecole Centrale Nantes (ECN) and other universities, Nextflow Software is pushing the limits of hydrodynamics simulation.

Context

We develop scientific cross-platform software using graphical user interfaces, 2D/3D modeling and rendering technologies, and high-performance solvers processed on supercomputers.
Your future team develops innovative solvers able to simulate complex physical phenomena.
In order to always stay on the cutting edge of innovation, the SPH (Smooth Particles Hydrodynamics) solver need to be enriched with latest methods available through our partners and in the Research community.

Your Role & Responsibilities

Within Nextflow's Solver team, you will take part to the development of an innovative numerical method: SPH (Smooth Particles Hydrodynamics) in our software.

In this context, you will:

- Participate to developments, industrialization, integration, validation and documentation of those numerical methods
- Participate to R&D projects for industrials and in collaboration with academic partners
- Ensure technological watch on innovative numerical methods

You will collaborate with all the teams of Nextflow Software (High Performance Computing (HPC), sales, software development…) and with our academic and industrial partners.

Your Profile

Passionate about numerical modelling, you are eager to work in a team where your contribution will have a direct impact on the company success.

You hold a PhD in CFD or other numerical simulation domains.

You have at least 3 years of experience in development of an SPH method

Autonomous, innovative and pragmatic with good communication skills, you are a solution-oriented person.

You are familiar with :

- Numerical methods (Navier-Stokes/Potentiel Lattice-Boltzmann/Vortex), particle, finite-elements, finite-volumes (VOF or Level set), …
- Hydrodynamic, ideally in automotive and/or marine applications
- C++ (latest standards)

Ideally, you know :

- Main CFD softwares (STAR-CCM+, Fluent, OpenFoam)
- Software engineering: git/SVN, Cmake, Ctest

Good level of English.

Please apply online at www.nextflow-software.com or by email : emploi@nextflow-software.com