

New Vacancy: CFD Product Development Engineer (CFDPDEDec2022)

Are you an enthusiastic and experienced CFD Development Engineer who wants to drive the development of RANS and LES for industrial application, helping to introduce CFD tools into a production environment and to increase their readiness and quality.

CFS are looking for a talented CFD Development Engineer to help create our next commercial product. The successful candidate will participate in the development and improvement of both RANS and LES for industrial application with V & V and documentation ready for commercial exploitation.

The ideal candidate will be PhD qualified with the following required skills:

1. CFD solver developing (coding) experience (Finite Volume preferred) and good understanding of the numerical aspects of CFD solvers and the physics of fluids
2. Programming skills: (Fortran), C, C++ and Python
3. Able to use development tools as CMake, SVN, Mantis...
4. Parallel programming (MPI) and HPC experience
5. Testing, Validation & Verification
6. Document and user-side experience

The following would be desirable:

1. Experience in Multi-physics simulations (for example, combustion modelling, CHT, fluid structure interaction, cavitation, DPM...)
2. Meshing operations and/or meshing software development
3. Industrial simulation applications, including LES

Personal Qualities/Skills:

- Team work and collaboration, but also independent working
- Project planning experience
- Problem solving and attention to detail
- Adaptable and using initiative

Industrial experience, as well as experience with transfer of knowledge from academia would be welcome.

About Cambridge Flow Solutions:

Our deep CFD and software development experience allows us to develop and implement simulation software, which we can tailor to the specific requirements of our partners. Our primary product is BOXERmesh, which we develop and sell commercially, but we also work with a wide range of 3rd party software. We maintain active development of our software products, in response to feedback from partners and customers. True to our aim of further promoting practical, fully integrated simulation workflows, we have now extended our core capabilities into the additional areas of geometry handling, editing & management, BOXERgeom and flow solving, BOXERsolve.

- Our core business is to collaborate with industry in a strategic research partnership
- We develop specialised and customised software to support advanced, real-world simulation
- We span the space between lower TRL university research and higher TRL level industry needs
- We support business opportunity both by transforming the efficiency and robustness of current workflows and also by creating and supporting new revenue streams
- We offer solutions across a range of **industries** based on our core research vehicles:
 - **BOXERmesh, a robust scalable fully parallel mesh generator**

- **BOXERgeom**, a voxel-based Digital Geometry™ modelling kernel which supports MRO, AI/ML
- **BOXERsolve**, a highly customisable ale RANS/LES/thermal solver

Applications Engineering:

CFS also provides application support to our range of industrial clients and partners, further improving their capabilities and adding value. We pride ourselves on close and regular customer contact, and have extensive, practical experience in developing and applying:

- Unstructured mesh generation
- Geometry management & editing - including mesh deformation techniques
- CAD import & tessellation for mesh generation, and CAD parameterisation for optimisation
- Steady/unsteady RANS CFD & LES/DES
- Conjugate aero/thermal simulation
- Parallelised software architecture
- GUI development

Job Location: Cambridge, UK

Job Type: Permanent

With offices on the world-renowned Cambridge Science Park, UK and Japan, we are continually looking for exceptional talent, particularly in the areas of Computing, CFD/CAE applications engineering, consulting, sales and support. We offer stimulating work in a young and dynamic company with exciting prospects.

Salary £45,000 to £55,000 per annum depending on experience.

Please email with a stated salary expectation and the job reference, CFDPDEDec2022 when applying. Only applications with this salary information will be considered.

Closing date: 23rd January 2023

Please forward all applications (enclosing a CV and cover letter) to careers@cambridgeflowsolutions.com

There will be a two stage interview process with an initial telephone interview and then successful candidates will be asked to attend an interview online or in person.

Cambridge Flow Solutions is an equal opportunities employer and we welcome applications from all suitably qualified persons.