



Job Description:

Job vacancy:	Research Engineer
Reporting to:	Head of Engineering
Location:	Bristol & Bath Science Park
Annual Salary:	Subject to applicant experience
Package:	27 days annual leave 4 x salary life assurance Group Personal Pension Scheme Group Private Medical Insurance Health Care Cash Plan



Overview:

The Centre for Modelling and Simulation (CFMS) is a growing, independent digital engineering consultancy providing technical expertise to help organisations create cutting edge solutions by pioneering new approaches to product development and enabling innovation services.

Working with commercial and research organisations of all sizes, CFMS has a full portfolio of digital innovation capabilities, including design and analysis services, consultancy, and IT infrastructure, CFMS uses digital innovation across the cyber-physical landscape (including a new robotics capability) to help develop more effective engineering solutions across industrial sectors critical to the UK economy.

As a commercially focused organisation we reinvest profits from commercial activity into the continued development of our people, facilities, and research capability.

About the role:

This role is suited to an individual with at least 3 years of post-graduation experience of developing numerical simulations, in either an academic or industrial environment. The Research Engineer will be focussed on developing and implementing novel simulation algorithms and enhancing existing modelling capabilities across a range of domains. They will be expected to identify areas for improvement and take ownership of developing tools to be applied across a range of projects. The Research Engineer will be expected to use their own initiative, judgement and critical thinking to evaluate candidate approaches and tools to achieve project goals. The role will also include some mentoring of junior colleagues and training new users in tools.

Key Responsibilities:

- Work with the Head of Engineering to develop and enhance CFMS' numerical modelling capabilities
- Take ownership of simulation codes and models to continually improve and maintain the tools
- Contribute to project reports and presentations
- Present technical project findings at conferences or in project meetings
- Provide technical input into project bids



Key Relationships:

- Technical Team
- Marketing Team
- Senior Management Team

Decision Making:

- Assess situations to determine the importance, urgency and risks, and make clear decisions which are timely and in the best interest of the organisation
- Set priorities, develop a work schedule, and monitor progress towards goals and track activities
- Assess and determine the appropriate framework to solve problems

Problem Solving:

- Work cooperatively and effectively with others to set goals, resolve problems and make decisions that enhance organisational effectiveness
- Amend priorities to ensure delivery to timelines when circumstances warrant it
- Resolve points arising from reviews
- Develop and implement novel solutions to engineering and simulation challenges

Experience:

- 3+ years' post-graduation experience of developing numerical simulations, either in an academic or industrial environment.
- A strong technical background in Maths, Physics, Engineering or Applied Computing domains.
- Experience of creating mathematical models and their computational implementations.
- Experience of programming in Python and/or C++ and working in Linux environments.
- Some knowledge of parallel programming, such as MPI or CUDA, is desirable.
- Experience of using software development practices such as version control, unit testing and CI/CD.
- Knowledge of model optimisation techniques, sensitivity analysis and design of



experiments are desirable.

- Experience of working with High Performance Compute (HPC) systems is desirable.
- Experience of customer facing activities such as technical meetings or requirements gathering.
- Experience of presenting and writing reports on technical subjects for a range of audiences.
- Evidence of self-driven

Skills, Knowledge and Competencies:

- Excellent written and verbal communication skills
- Organisation and planning
- Formal presentation skills
- Customer focus
- Teamwork
- Self development
- Attention of quality
- Results-focused
- People development
- Initiative

How to Apply:

Email your CV and covering letter to careers@cfms.org.uk. If you would like further information on the role please contact us on the email above or call **0117 906 1100**.

Applicants must be eligible to work in the UK.

Direct applications only - no agencies.