

OXFORD SIGMA JOB DESCRIPTION

06th September 2023

Job title:	Senior/Principal Fusion Engineer
Job location:	Oxford City Centre, UK
Hours:	Flexible, full-time (37.5 hours per week)
Salary:	£52-79k
Starting Date:	October – November 2023
Reference:	OS-JA-SENFUSENG-01

Company

Our vision is to tackle energy security and climate change by accelerating the commercialisation of fusion energy. **Our mission** is to deliver materials technology, materials solutions, and fusion design services in order to assist fusion delivery.

About us: We are a small, organically grown, company owned and operated by scientists and engineers, with our roots and headquarters in Oxford. We have established ourselves as a highly respected technical service supplier for the fusion energy market, within both the private and public sectors, nationally and internationally. We are equally a research and technology development company developing novel disruptive materials and design technologies to help in the required fundamental shift for the world's clean energy future.

Role

We are expanding our technical team in technology development, to support our fusion computational and engineering department. The role will include the following:

- Development of Oxford Sigma's fusion engineering modelling of reactor designs.
- Maintain documentation on development activities, and decision points using conventional management approaches.
- Being responsible for allocated budgets and assisting with grant or investment submissions.
- Being responsible for projects with customers, internal clients, and/or collaborations.
- Representing the company at national or international conferences, which could include public speaking.
- Provide line management, guidance, and support for more junior engineers.
- Provide technical leadership or project management on small projects, for collaborative, internal and external projects.

The role will require teamwork, and the ability to communicate complex challenges to a range of audiences. Materials and their integration are a grand challenge for the realisation of fusion power on the grid, you will be working on problems without obvious solutions requiring tenacity, and lateral approaches to solve. Some national and international travel will be required.

Qualifications & experience

Ideally, you will have some of these:

- Experience in either the following neutronics, computational fluid dynamics, magnetohydrodynamics, computer aided design, and structural analysis.
- Hands-on experience in developing and implementing complex simulation models, preferably with a focus on fusion systems.

- A desire to find solutions using a combination of first-principles, general engineering and simulations.
- Excellent analytical and problem-solving skills, with the ability to translate simulation outputs into actionable insights.
- Proficiency in Python and related development infrastructures (git, docker).
- An ability to communicate technical concepts to technical non-specialists.
- Experience of project and budget management or as a project technical lead in a multi-partner environment.
- Experience managing, supporting, and developing junior staff members.
- Excellent verbal and written communication and presentation skills.

Maybe, you will have some of these:

- Ph.D. in Physics, Engineering, Materials Science, or a related field with a strong focus on computational modelling.
- Experience in simulation optimisation and validation, including experimental benchmarking.
- Experience in developing and executing strategic roadmaps for modelling and simulation efforts.
- Ability to provide visionary leadership to the Modelling and Simulation team, fostering a collaborative and innovative work environment to enable Oxford Sigma's technology development goals.
- Start-up experience, a desire to build business, and strategise for the future.

Eligibility

The candidate must have the right to work in the UK.

Our benefits

- 28 days annual leave
- Annual bonus up to 10%
- Flexible working around core hours
- Company pension scheme
- Cycle to Work scheme
- Company share options

Additional Information

Underrepresented people are less likely to apply for engineering roles if they do not meet 100% of the job requirements. We are actively seeking these kinds of applicants and believe in hiring people not checklists. If you are interested but unsure if your experience aligns, please email Thomas Davis, the hiring manager, at careers@oxfordsigma.com, to discuss if this role or others we are developing may match you as a person.

Apply

Submit your CV and cover letter (both PDF format) at www.oxfordsigma.com/careers/

The application deadline is **17:00 22nd September 2023**