

Data Scientist/Senior Data Scientist

Job Ref 83

Job Description

We are looking for a Data Scientist interested in applying machine learning, AI & applied statistics techniques to Physics & Engineering problems. You will design and implement data science tools to support teams working towards the goal of inertial fusion power production.

You will have a broad knowledge of machine learning techniques and data modelling. You will be able to use that knowledge to work independently and solve new challenges related to our research in inertial confinement fusion. The Data Science team at First Light Fusion is new and there will be the opportunity to help shape its direction and approach.

The position will be at scientist or senior scientist level on the FLF scale depending on experience.

Responsibilities will include:

- Consistently improving the capability and quality of our data science tools
- Enhancing our numerical modelling approach and managing uncertainty in our simulation models using data science techniques
- Working closely with the experimental team, contributing to data processing and interpretation of complex experimental diagnostics
- Working as a subject expert within the team in one or more of the following areas: Uncertainty Quantification, Optimisation, Inference, Emulation/Regression, Neural Networks & Transfer Learning

Essential

- A MSc or PhD in a relevant technical discipline (e.g., Physics, Engineering, Maths, Computer Science etc.)
- Broad knowledge and experience with a variety of machine learning & data science techniques, ideally applied in a Physics, Engineering or Simulation context
- A track record of successfully planning and executing data science research
- Hands on experience using Python and associated libraries, or a strong desire to learn
- Demonstrated self-motivation, enthusiasm to work in a dynamic team environment and evidence of taking the initiative
- Strong communication and interpersonal skills

Desirable

- Broad Knowledge of Physics
 - Software Engineering Skills
 - Experience with C++, Fortran, R, Julia
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Benefits

- Very competitive salary
- 25 days annual leave (increasing to 28 with time in service) + bank holidays
- 8% employer pension contribution without matching requirements
- Relocation support
- Flexible working
- Generous share options scheme
- Free lunch and soft drinks
- Enhanced maternal / paternal leave
- Enhanced sick leave

Additional information

[How to apply](#)

Please send your application and CV to careers@firstlightfusion.com quoting the job title in the subject. If you don't hear back from us within four weeks, it means that unfortunately your application was unsuccessful at this time.

Informal enquiries may also be addressed to careers@firstlightfusion.com.

[The interview process](#)

We typically carry out two separate interviews, each one about sixty to ninety minutes long. The first one aims to understand how your skills match what is required for the job and the discussion will be focused on your areas of expertise. If successful, you will be invited to the second interview, which is more focused on your personal skills, and how your objectives align with the company mission and values. We try to understand the value you will add to First Light, and how you can thrive and be happy with us. There will be opportunity to ask us as many questions as you like.

If you are invited to the second interview, it's probably time to warm up two of your referees, as we may ask you to put us in touch with them. If you are the successful candidate, we will send you an offer letter and, once agreed, a contract.

If you are invited to an interview, we will certainly get back to you to let you know the outcome.

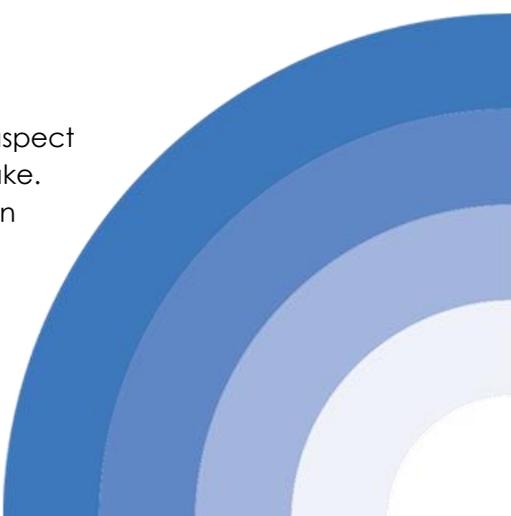
To help with logistics issues, we can arrange so that the two interviews are organised on the same day. We will also reimburse reasonable expenses you incur to come to talk to us.

We don't have a dress code at First Light and regardless of seniority there is a good mix of t-shirts, trainers, shirts and blazers. For your interview, please dress in whatever makes you feel most confident and comfortable.

[Our commitment to equality, diversity and inclusion](#)

We are a small company with a huge mission. The only important aspect for the team, and for each individual, is the contribution they can make.

Our selection process and requirements for career progression disregard gender, gender identity, race, disability, colour, religion, and all other aspects of diversity that make us all humans. Diverse



teams have been proven to be better and we strongly believe it. We're not perfect but we strive to be.

[Information for recruiters](#)

We work with a trusted network of recruiters, therefore CVs sent by other recruitment agencies will not be considered. In the event that the company receives a CV from both the direct applicant and a recruitment agency, the CV will be treated as a direct application by the individual only. Unsolicited contact from recruitment agencies will be disregarded.

First Light Fusion

We are a lean, focused and agile company researching energy generation by inertial confinement fusion. We spun out from the University of Oxford in June 2011 and are based near Oxford. First Light continues to work closely with the academic community, both in the UK and internationally. The company is well-funded by both institutional investors and private individuals.

Inertial confinement fusion for energy generation is a well-established research field and is being pursued in many laboratories worldwide, perhaps most notably in the US at the National Ignition Facility. We are exploring a number of alternative research directions that harness the same fundamental physics, with the prime focus being power generation. Our work to-date has included theoretical analysis, detailed numerical simulation, and experimental validation. We have an increasingly clear vision of the pathway to a power plant.

We really believe fusion will be solved in the 2020s. If it's solved by us, fantastic, if it's solved by someone else, still great.

