



# Scientific Software Developer

## The Opportunity:

IBEX Innovations Limited is seeking an experienced Scientific Software Developer to work in our data & AI team, developing groundbreaking and disruptive new products for medical X-ray imaging. As a code developer within the team you will be responsible for translating new innovations and developments into fast, parallel and robust software. The successful candidate will also take the lead on maintaining the datasets used for AI within internal projects.

The ideal candidate will have several years commercial experience developing scientific software; with a focus around speed optimization on GPUs using CUDA. Working with large volumes of data will be required so experience with data analysis and mathematics would be a significant advantage.

The position offers a unique opportunity for the right individual to convert groundbreaking innovations into high performance code for real and valuable applications in medical imaging.

Listen to AI Technical Lead, Thomas Jubb, talk a little more about this role here -

<https://www.youtube.com/watch?v=XvokxTlqGkg>

## About IBEX®:

IBEX® is a technology business in the advanced stages of commercialisation of a patented X-ray detector technology for medical X-ray imaging markets. IBEX® is focussed on one goal: to apply advanced physics modelling, statistics and AI methods to extract the maximum amount of useful diagnostic information from every single X-ray. A vision to improve patient lives through earlier and more accurate diagnosis and to improve efficiency and reduce costs for health care providers everywhere.

Based in modern offices on the NETPark Science Park in beautiful County Durham, IBEX currently employs 17 highly skilled staff including scientists, mathematicians, software engineers, and business professionals.

## The primary responsibilities of the role will be:

- Writing maintainable, robust code and software in python and C++ to support internal project delivery; building from existing code.
- Optimizing software for GPU parallelization using CUDA.
- Communicating code between python, Matlab and C++ to leverage the benefits of each.
- Managing internal releases of software toolkits used within projects.
- Developing software for customers with the support of the wider software team.
- Supporting the AI team by maintaining good practice for code development within the team.
- Data management of internal datasets; some level of system administration with the support of the wider software team.
- Oversee the future scaling up of computational resources to support physics based simulations.

## Candidates must possess the following essential skills and experience:

- Scientific software development using python, or C++.
- Masters in Computer Science or related discipline.
- Good C++, python and CUDA/GPU programming.
- Evidence of data management skills.
- Understanding of GPU's and parallel computing/HPC.
- Strong team skills.

## Additional skills and qualities which would be beneficial:

- Knowledge of Matlab.
- Experience of commercial software release.



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- Understanding of AI deployment.
- Domain knowledge in Medical Imaging, Medical Physics or x-ray physics.
- Experience with a particle simulation code (e.g. GEANT4) or raytracing (Optix, Embree).

## Location

NETPark Science Park, Sedgefield, County Durham

## Salary and Benefits:

Salary: Competitive salary based on experience.

Benefits: IBEX operates a flexible benefits scheme including pension and life insurance

Share Options: Share options are available following successful completion of a three-month probationary period.

## Closing Date:

### Open

Please note should sufficient applications be received IBEX® reserve the right to close this vacancy at any time, we always encourage all interested applicants to apply at their earliest convenience to avoid disappointment.

## Data Protection and Equality:

As a company driven by our values of Respect, Fairness, Honesty and Integrity, we know inclusion and diversity are essential for us to be able to succeed. We believe that people from different backgrounds can bring unique experiences and fresh ideas, ensuring they feel good and to keep growing their careers.

As you apply, we will ask you to share some personal information, which will be used in the recruitment process. We want to have an opportunity to consider a diverse pool of qualified candidates and this information will assist us in meeting that objective and in understanding how well we are doing against our inclusion and diversity ambitions. Rest assured, only those involved in the recruitment process will have access to this information and we will treat your information confidentially. This information will be shredded should you be unsuccessful following the recruitment process.

Please don't hesitate to contact us if you'd like to discuss any adjustments to our process which might help you demonstrate your strengths and capabilities.

Should you be successful at interview, we will ask you to complete a right to work checklist prior to commencing employment with IBEX, as proof you are eligible to work in the UK.

**If you are interested in this position, please forward your CV and cover letter to:**

**[l.march@ibexinnovations.co.uk](mailto:l.march@ibexinnovations.co.uk)**