into∫gral **LIMITED**

Software Engineer / Senior Software Engineer

Intogral Limited
North East England
£35k-£42k + share options

Company Information & Overview:
Intogral Limited is a new spin-out from Durham University. We're developing world leading image analysis software for a global client base working with Artificial Intelligence and Deep Learning. Based in the beautiful Cathedral City of Durham in the wonderful North East of England, this is an opportunity to join and shape a business at its earliest stage. Initially for a one year fixed term period with a view to a permanent position following company growth.

With industries across the globe producing a greater and greater volume of imaging data, Intogral Limited provides an essential service. Utilising world-class research in image processing, machine learning, computer graphics and GPU computing methods, Intogral Limited brings off-the-shelf advanced image analysis software, consultancy, and bespoke solutions to its customers across the diverse markets in Biology, Medicine, Pharmaceutics, Manufacturing, Engineering, Satellite Imagery, and Security.

Salary range: £35-£42k with share options, depending upon skills and experience. Flexible working hours with the option to work from home for part of the week if desired. 25-days annual leave, plus 5-days paid personal development leave, plus Bank Holidays. A 40-hour working week.

Our team's culture:
- Writing simple, clear code.
- Open discussion.
- Continuing Training and Development.
- Ownership of your own code.
  We promote Open-Source software and permit you to release and self-license libraries / code where it doesn't compete with the business' commercial interest.

Job Responsibilities:
- Lead in the development of a 3D medical image processing and analysis library.
- Write clear, simple, well-tested, cross-platform, production-ready code.

- Commit daily to a Git repository with well-designed modular functionality:
    - Core image library functions.
    - Tests.
    - Visualisation and interactive components.
    - Automated library documentation, e.g. docs.readthedocs.io.
- Write clear and concise technical and non-technical reports.
- Communicate clearly with internal and external customers / partners.

Essential Skills:

You should be able to demonstrate some or all of the following skills:
- Proficient in Python.
- Experience in writing GPU code (for example: GLSL, SPIR-V, or CUDA).
- Strong mathematical ability (such as: gradient descent, integration, matrices, tensors, mathematical optimisation).
- Evidence of successfully completing projects (e.g. GitHub profile or project portfolio).
- A good ability with UNIX.
- Competent use of Git, Slack and other related tools.
- Know how to produce professional code that can be transferred to a client.

Desirable Skills:

It would be useful if you were also able to demonstrate knowledge of:
- C++.
- Computer Graphics.
- GUIs.
- C.
- HTML5/Javascript.
- MATLAB.
- Deep Learning libraries/APIs (e.g. PyTorch, Tensorflow).

Qualifications:
- BSc, MSc or PhD in Software Engineering, Computer Science, or other related field.
- Experience gained in a relevant field, either academic or industrial.

This is a leadership role, we expect our team members to all represent the business and proactively lead the development of our products.

Recruitment Process:

We would like you to submit your CV with a covering letter to jobs@intogral.com explaining why you want to work for Intogral and what experience you can bring to our small team. We will ask you to complete a programming task in your own time that will help us understand how your skills will fit into our team. Successful candidates will be asked to come to Durham to meet the team and demonstrate your practical ability.