

Software & Signal Processing Engineering Role at Spyras

Job Title: Software & Signal Processing Engineer

Salary: £28-31k

Job Role: Permanent

Location: Vauxhall/Angel, London, UK

Start Date: 6th January 2020

Application Deadline: 24th November 2019

About Spyras

Spyras is a multi-award-winning start-up that is developing novel technologies to analyse breathing. Our signature technology is an innovative paper-based sensor that can monitor breathing patterns through moisture changes of breath in the aim to predict when abnormal breathing rates occur in patients developing sepsis. We currently have major healthcare backers to commercialise our technology as well as opportunities to form partnerships in sports, well-being and other consumer products to integrate our technology. The need to expand the team has become a priority in order to meet the demand and we are looking for the best to join in Spyras and be a part of our story.

Job Role

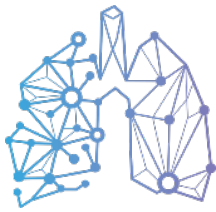
We only want to have enthusiastic, hard working and keen-to-learn individuals at Spyras and with the current stage of the company, any individual joining will have the potential to take a significant leading role in the company as it grows. The baseline role is outlined below:

- Analysis, development and testing of digital signal processing algorithms for the calculation of breathing characteristics
- Participate in experimental lab testing and data acquisition from clinical trials
- Define, document and implement comprehensive unit and functional tests against current respiratory standards
- Implementation of cloud-based analytics and system architecture
- Optimising data transmissions in relation to hardware developments and cloud server data analytics
- Work directly with the senior management to drive technical developments
- Expected to attend clinical/business meetings and liaise with senior clinical professionals
- Willing to try new ideas and fail fast!
- Take on new responsibilities and pragmatic in their role
- Represent Spyras at national and international events and to build both personal and business networks and relationships

Essential Requirements

Willingness to learn! That's all we ask. We know how hard it is to get any work experience on a CV let alone the 5+ years' experience in a major company that some grad schemes are asking for! We are looking for a foundation knowledge in the following areas and most of all drive and ambition to succeed:

- Bachelor or Masters' degree in Computer Science, Engineering or Mathematics. It would also be desirable (but not mandatory) a PhD or other advanced research degree.



SPYRAS

RESPIRATORY ANALYTICS

- Experience and deep understanding of digital signal processing concepts such as filtering (IIR/FIR), resampling, aliasing, quantization and analogue-to-digital conversion in medical applications
- Experience creating and implementing other (non-linear) algorithms for processing and analysing data and event streams
- Experience in quantifying algorithm performance, including statistical concepts such as confusion matrices, sensitivity, specificity, etc.
- Experience with Python and Swift (or similar programming languages and a willingness to learn Python)
- Comfortable in performing data analytic solutions
- Creativity in finding solutions, a good understanding of technology and a desire to learn new things
- Must have UK work visa already in place and eligibility to work in the UK
- Fluent in spoken and written English

Optional

- Interest in learning data science/machine learning tools and techniques
- Electronic component and PCB manufacture interest
- Experience in developing medical grade algorithms and medical device development
- Cloud based computing systems
- Mobile app development (iOS preference) and web development
- PowerBI base knowledge

Benefits

As well as saying that you are apart of the Spyras family, your employment would also cover the following:

- 25 days paid annual leave plus statutory holidays
- Pension contribution
- Flexible working hours/location
- Annual salary and performance review
- Qualification and training support to enhance your career goals
- Access to company share options

Think you have that? Then we want to hear from you.

All applications must be sent to info@spyras.com with the subject line that contains the applicants full name and job position e.g. 'SPYRAS | Software & Signal Processing Engineer Application'.

Any questions relating to the position can be relayed to info@spyras.com where we will endeavour to reply as soon as we can. Please keep the subject line contents as above.

Applications must contain a **2-page CV**, **Spyras** and **job specific covering letter** and (if possible) some **project/portfolio** of your work to consider. This is your opportunity to set you out from the rest!

Applications will close on 24th November 2019 with outcomes and invitation for interview will be issued by close of business 29th November 2019.

Recruitment agencies or other employment agents will be not be considered