



Job/Person Specification

Senior Software Developer - Education

Talis is a dynamic, innovative, established technology provider. As a company majority owned by our employees, we pay a great deal of attention to those who work with us. So, if you are adaptable, like a straightforward and plain speaking culture, have the stamina to maintain high standards over long periods of time, and care deeply about what you do, Talis could be the place for you.

The Role

We have an opening at Talis for a Senior Software Developer to join an established team that is focussing on building innovative, powerful, user-centred, web-based applications and services that enrich education. These applications, such as [Talis Aspire](#), are built upon our [Talis Platform](#) which makes it easy for developers to create applications that use Semantic Web technologies and standards. We are looking for passionate, motivated individuals who like to learn new things and aren't afraid to be challenged.

To be successful at this role you will:

- Be proficient in using PHP and be comfortable using other scripting and programming languages
- Have experience in building applications on the LAMP stack
- Use code to communicate your ideas clearly
- Be able to break dependencies and decompose hard problems into simpler ones
- Understand the principles of unit testing and can describe when to use mocks
- Prefer to develop test first
- Never forget about scalability, performance and security
- Be able to develop solutions to problems, communicate them to the team and get them implemented quickly
- Not be afraid to ask questions
- Understand that it is your responsibility to engage in debate
- Be able to describe the principles of REST
- Like to say “let's try it” and “we can do that”
- Know when to re-factor
- Understand how to balance perfection with reality
- Be as happy to lead as to follow
- Be expected to have an opinion and to listen to others
- Know when to reuse and when to start afresh
- Be able to tell us about something new that you learnt this year



How to apply:

Take a look at the problems below and answer *two* of them. Then send your answers (together with your CV and an application letter) to careers@talis.com.

1. Discuss the different types of automated testing that are needed to maintain high quality software. What kinds of programming language are best suited to each type of testing? What automated techniques could be used to test web based applications and user interfaces? And how can code design and refactoring be affected by choice of language?
2. When working with data that you do not own, there are no guarantees about the cardinality of fields or the presence of data you might want to consider mandatory. Traditional approaches to working with data from elsewhere have relied on cleaning, validating and then importing data into an application's own database. The Semantic Web allows data to be shared at runtime. What techniques or strategies could be employed within an application to handle unreliable or unexpected data when sharing databases with other applications at runtime?
3. Web applications are often composed of multiple interoperating systems, connected by APIs or other endpoints, and deployed across multiple environments. As usage patterns change, the application may need to scale rapidly, whilst maintaining performance and reliability levels. How can applications be designed to allow for such scaling?

The starting salary for this post will be around £35 - £42k, depending on skills and experience, though this may be flexible for an exceptional candidate. Talis provides a series of very competitive benefits including a contributory pension scheme, healthcare cover, optical and dental cover, a childcare scheme, all within a highly flexible working (time and location) arrangement. Training and further professional development opportunities are also supported.

We envisage you working on average a 36.25 hour, five-day week. Annual leave entitlement is 22 days increasing by one day per annum to 27 days.

There will be multiple stages to the interview process.

These details do not form part of any contract.

Talis is an equal opportunities employer. All applicants are considered on the grounds of individual ability regardless of factors such as gender, age, race, ethnic origin or disability.