

Job title	Software Engineer		
Job family	Technology, Systems & Delivery	Proposed band	C

Job purpose
Responsible for implementing effective software and tools for given designs.

Key responsibilities and accountabilities
<ul style="list-style-type: none"> • Develop effective software that meets given specifications • Review and give feedback on others' code • Write appropriate tests using automated test driven techniques for ensure code quality • Integrate the software with monitoring and support tools • Support system integration in its operating environment • Write and review technical documentation • Help to troubleshoot and resolve issues throughout the product life cycle, including out of hours support for incident resolution • Participate in the team's agile planning and delivery process • Effectively participate in the teams software development methodologies, such as pairing, code and documentation reviewing and continuous delivery • Learn new technologies and keep abreast of existing technologies

Knowledge, skills, training and experience
<p>Essential</p> <ul style="list-style-type: none"> • Demonstrable experience writing and maintaining robust production software • Competence in one or more mainstream development languages and frameworks

- Competence with one or more mainstream development and deployment tool chains (IDE, SCCS, CI)
- Knowledge of the web architecture and key technologies (HTTP, DNS, distributed design)
- Competence in test driven development and broader testing & QA concerns
- Competence in developing for operational concerns (monitoring integration, performance testing, security considerations)
- Experience of project working and professional software development processes, including agile
- Effective collaboration within a team – ability to speak up, challenge, agree and commit

Desirable

- Experience of database design and use in software applications
- Takes responsibility for driving tasks to completion
- Understanding of designing & implementing for non-functional concerns
- Worked in a professional software development environment on several projects (including experience in testing, design and release)
- Experience of releasing their software to a production use case
- Participated in reviews and inspections of code (sat with a peer or someone more senior reviewing your code)
- Software Engineering or Computer Science Degree or equivalent

Job impact

Decision Making

- Reports to Principal Software Engineer or Software Engineering Manager
- Tasks are allocated to the job holder by the team lead
- Undertakes tasks independently
- Independently writes tests to check quality of code
- Assesses feedback from reviews and incorporates as appropriate
- Troubleshoots independently or with the support of others where necessary
- Contributes to the teams iterative and collaborative design and implementation decisions

Scope

Finance: No financial responsibility

Line Management: No line management responsibility

Ad-hoc Teams: Participates in departmental hack days and external ad-hoc events (typically 5 to 20 members)

Other information

For Reward team use only

Job Code

Definition:

Content

This job description is a written statement of the essential characteristics of the job, with its principal accountabilities, incorporating a note of the skills, knowledge and experience required for a satisfactory level of performance. This is not intended to be a complete, detailed account of all aspects of the duties involved.

Appendix

There may be sub-sets of the generic job described above which require additional technical skills. This appendix to the generic job description can be developed to cover such situations.

Division	Deputy Director General Group
Reports to (title)	Software Engineering Team Lead
Location base	Broadcast Centre, London

Organisation structure	Design + Engineering > Content Production Workflows > Curation, Authoring and Metadata

Additional job specific responsibilities and accountabilities

The BBC has been serving audiences online for more than 20 years. Across key products including BBC iPlayer, BBC News and BBC Sport, BBC Weather, bbc.co.uk and now BBC Sounds, we entertain, educate and inform

people in their millions, every day.

Behind the scenes, however, we have work to do. We are making the shift from being a broadcaster that speaks to audiences to building products that are shaped around people. We are creating personalised services that bring the right content, to the right people, at the right times – a personalised BBC. It will be our greatest leap since iPlayer, and it is right at the top of our agenda.

Delivering it is going to require a fundamental reshaping of the BBC's culture and how we work. For the new Curation, Authoring and Metadata group in our Content Production Workflows department, that means a ground-up rethink of the tools, workflows and technologies involved in creating, describing and curating all of our content -- journalism, audio, video and digital alike.

This means asking ourselves some big questions: What does online journalism look like as we leave the print world behind? How do we put tagging at the heart of a personalised BBC? The News and Sport front pages are seen by millions of people and are built by our tools: what are the best ways of curating the stories on them? What does structured content look like at scale, with a workflow that serves thousands of journalists around the world publishing in more than 40 languages?

We're thinking about technology and culture too. Questions like: Instead of large unwieldy production tools can we build smarter and faster web-based apps out of React components and power them with GraphQL? How can we bring data science and machine learning to bear on content classification and publication workflows? And what are the ways of working that will allow a team of software engineers to design, build and support this at the scale of the BBC?

We're figuring out the answers to these questions and more like them, and we're starting right now. Come join us.

Role responsibilities

BBC Design & Engineering is looking for an enthusiastic software engineer. As a full-stack developer on the CAM team your responsibilities will be:

- Design and implement content management components and services to specification that are efficient, scalable and well abstracted, using a variety of server-side technologies.
- Ensure quality of code by implementing unit, integration and acceptance tests, as well by using code reviews and pair programming.
- Write clear, concise and comprehensive technical documentation.
- Liaise with other teams to explore and suggest appropriate technical solutions to achieve the required product features while safeguarding usability, reliability, scalability and performance.
- Work with all relevant parties on the deployment to the live site and all intermediate hosting

environments.

- Ensure software conforms to operational requirements of hosting environments.
- Work with test and operations teams to troubleshoot and resolve issues throughout the life cycle.
- Ensure your work meets BBC Online technical standards and guidelines
- Monitor work against the schedule and provide progress updates to senior colleagues on a regular basis.
- Learn new and keep abreast of existing technologies and be able to apply these to a variety of projects as applicable.
- Assist junior or graduate developers by providing guidance, instruction and expertise where required

Are you the right candidate?

Essential

- Experience developing in Java/Scala/JavaScript for production systems
- Solid understanding of object-orientated programming techniques and use of design patterns
- Experience writing REST web services
- Experience of web frameworks
- Familiarity with both relational and NoSQL databases (we use MongoDB, Redis, MarkLogic, PostgreSQL and Oracle)
- Familiarity with Linux, CentOS or UNIX operating systems (most CPS components are deployed onto CentOS but you can choose your own development OS)

Desirable

- Understanding of Functional Programming as a development paradigm.
- Demonstrable experience with using design patterns.
- Experience of using MongoDB, MarkLogic or PostgreSQL.
- Experience of Amazon Web Services.

Approval	
Manager	
HR Business Partner	
Date	