Senior Software Engineer

Basic information

Scale: 2.2
Job family: DDaT
Terms: Permanent
Location: Cheltenham

Reports to: Technical Team Lead
Direct Reports: n/a
Team: Product Engineering
Business unit: Digital and Data

Date reviewed: January 2021

Job purpose:
- The Senior Software Engineer reports to the Technical Team Lead.
- Assumes the role of key development and technical specialist resource for the team, and is responsible for developing and delivering quality software solutions.
- Maintain a detailed knowledge of existing UCAS applications and systems.
- Work alongside other senior software engineers to ensure compliance with UCAS coding and design standards.

Key accountabilities:
- Provide technical leadership and innovation, utilising advanced technical skills.
- Accountable for the development of quality solutions based on technical requirements.
- Provide coaching and mentor other team members in key technologies and developments, to improve general skill set of team and increase knowledge of solutions.
- Code/configure and document complex solutions from supplied specifications, using agreed standards and tools, and conduct reviews with others as appropriate.
- Define and maintain coding and best practice standards and documentation guidelines.
- Develop and maintain specialist knowledge of cloud technologies, design principles, architectures, and software.
- Analyse data requirements to establish, modify, and maintain object/data models
- Act as a subject matter expert (SME) for related technologies and understand the interactions between the systems.

- Work closely in collaboration with solutions architects to produce systems analysis documentation for the implementation of new projects and system changes.
- Work with Change & Release Management to ensure a smooth transition/transfer of new systems and developments into the run area.
- Support CITP with release deployment and configuration duties.
- Provide accurate estimates for development activity as part of a request for change deliverable (either standalone or as part of a project).
- Maintain interoperability of all development work to ensure applications can work with other products or systems – present or future – without any restricted access or implementation.
- Develop user stories by working with product owners and SMEs, developing sprint goals, translating business requirements into technical specifications, and assisting in maintaining product backlogs as needed.
- Validate technical requirements and prioritisation in line with product roadmap.
- Evidence testing to satisfy criteria for delivering a release, end-to-end business process testing as per agile methods.
- Provide support for new releases for the agreed early life support period and ensure high quality handover information before discontinuing support, including secondments to support where appropriate.
- Provide technical input into long-term continuous improvement activities carried out by CITP

Skills, qualifications, and experience:

- Educated to degree level in relevant computing discipline or with equivalent professional experience.
- Five or more years' experience of developing enterprise level .Net applications.
- Experience leading and designing solutions using the following:
- technologies: ASP.Net, C#, Web API, MVC, Angular, REST, JSON, Messaging (SNS, SQS)
- databases: Oracle, SQL Server, MySQL, PostgreSQL
- tools/frameworks: Visual Studio 2015 and above, Git, Soap UI, Munit, xUnit, Confluence, JIRA, Bamboo, MySQL Workbench o methodologies: agile, scrum, test-driven development (TDD), continuous integration (CI)
- Strong knowledge of rest APIs and integration via APIs, software design patterns.
- Strong experience of: Event driven architecture (Messaging, Event sourcing) AWS or Cloud development Serverless application development (AWS Lambda / API Gateway experience advantageous) AngularJS .NET Core, Java, CI/CD deployment and maintenance (Atlassian Bamboo) Automated TestingExcellent communication and interpersonal skills.
- Able to communicate effectively to both technical and non-technical audiences.
- Experienced in designing and building usable and scalable systems and applications.
- Comfortable working in a dynamic, large-scale agile change initiative with multiple technologies.
- Experience developing for the cloud, specifically AWS.
- Experience of test-driven development alongside use of automated test frameworks, mocking/stubbing, and xUnit/Munit.
- Experience using behavior-driven development with Cucumber.