Site Reliability Engineer

Basic information

Scale: 3
Job family: DDaT
Terms: Permanent
Location: Cheltenham

Reports to: Lead Site Reliability Engineer
Direct reports: N/A
Team: Site Reliability
Business unit: Technology

Date reviewed: April 2020

Job purpose:

The Site Reliability Engineer (SRE) will proactively ensure the stability, resilience and scale of our services by automation, testing and engineering. To build on expertise from Product teams' systems/operations, cloud infrastructure (AWS), build and release engineering, software development and stress/load testing to make sure our services are available, cost optimised and fit for purpose early in the development lifecycle.

The SRE will also work alongside the development, architecture and service management teams, to ensure technical solutions are aligned to the UCAS' architectural principles, designs and NFRs, that deliver value to our customers as well as ensuring consistent monitoring, logging and alerting.

Key accountabilities:

- To lead technical assurance in significant projects, for the delivery of quality technical deliverables, which may involve several teams or technologies working together longer term for mutual benefit.
- To be involved in every step of the application software development lifecycle, including product design, development, testing, and transition into operation, making recommendations that others consider in their decision-making process.
- Evaluate risks and defects, analysing specifications, conveying complex information and customising applications for specific customer needs.
- With a focus on agile methodologies, test automation, test data management, and continuous integration, the SRE will make, improve and enhance the delivery and deployment process influencing the outcome of work in several departments.
- Authority to halt or stop a project/product if the solution is not technically acceptable.
- Responsible for producing and maintaining documentation relating to application design, integration processes, testing procedures, and deployment approach as well as working with teams to create operational run and playbooks.

- To work with stakeholders in the Enterprise, Solution and Development teams to produce and maintain standards, guidelines, and pattern catalogue.
- To mentor and coach others within the team in order to ensure quality and precision engineering.
- Accountable for ensuring early in product lifecycles that designs and NRFs are part of the foundations of teams.
- Work with technical roles across the department to drive evolution of the dev-ops toolchain, promoting improvements to streamline the software delivery process and showing improvements through metrics.
- Build innovative prototypes and lead development teams to develop quality solutions, by translating architectural designs into lower level implementation details, helping implement user stories if required.
- To take highly complex and manual processes and work to simplify and automate them.
- To influence teams to deliver quality, and operational excellence, monitoring alignment to design patterns and design collateral.

Skills, qualifications, and experience:

- Significant experience working with Windows and Linux Containers (focus currently on Windows).
- High understanding in NF testing (Performance, Security, Cost Optimisation etc).
- Highly proficient with Kubernetes, Terraform and AWS.
- Ability to get up to speed with domain knowledge.
- Experience in administration of ServiceNow, Jira, Bamboo and other Atlassian products.
- An individual who can perform highly in a multi-faceted role – facets that include a very strong technical knowledge, and awareness of emergent trends.
- Competent in Windows C# build tools and practices including MS Build.
- Expert in Git and GitOps philosophy.
- Expert in Logging and Monitoring tools (Splunk, ELK, Prometheus, Grafana), incorporating frameworks and instrumentations into C# code.
- Operational experience in maintaining applications.

This role profile sets out the scope and main duties of the post at the date when it was drawn up. Such details may vary from time to time without changing the general character of the post or the level of responsibility entailed. Such variations are a common occurrence and cannot of themselves justify a reconsideration of the level of the post. All UCAS employees are expected to be flexible in undertaking the duties and responsibilities attached to their role and may be asked to perform other duties, which reasonably correspond to the general character of their role and their level of responsibility.

Our values in action:
Customer-focused – We understand what our customers want, and we act on their changing needs.
Collaborative – We collectively create an engaging and positive work environment.
Accountable – We take ownership of our individual and organisational performance.
Service excellence – We realise, grow, and maximise our potential.
Trusted – Individuals are trusted to make informed decisions and take appropriate risks.