

# KERALA UNIVERSITY OF DIGITAL SCIENCES, INNOVATION AND TECHNOLOGY

(formerly IIITMK)

Technocity Campus, Kuracode, Mangalapuram, Thonnakkal P.O.,

Thiruvananthapuram - 695 317, Kerala

Phone: 0471-2788000, Website: [www.iiitmk.ac.in](http://www.iiitmk.ac.in)

No. KUDSIT/Ad/02/2021/Advt

05/02/2021

## REQUIRES

Kerala University of Digital Sciences, Innovation and Technology (Digital University of Kerala) was established in 2020 by the Government of Kerala by upgrading the Indian Institute of Information Technology and Management, Kerala. It is a non-affiliating research and post graduate teaching University in the State of Kerala to facilitate and promote studies, research, incubation and extension work in Digital Technologies and its application domains in Science, Engineering and Humanities. It is the first Digital University in the state.

Kerala University of Digital Sciences, Innovation and Technology invite applications from suitable candidates for the following posts under a Data Analytics Project of the University.

- 1. Designation:** Database Administrator  
**Job Code:** DAD/022021/02

**Education:** B-Tech/BE/MCA/M-Tech/MSc in Information Technology or Computer Science

**Experience:** 3 – 7 years (Minimum of 2 years' experience as a DBA in a production and development environment with SQL Server/MySQL/Oracle and PostgreSQL)

**Pay Scale:** Rs. 30000 – 70000

**Required Skills:** PostgreSQL, MySQL, Oracle/SQL Server, MongoDB/Elasticsearch/Couchbase

**Analytical skills:** DBAs must monitor the database performance and evaluate complex information coming from a variety of sources.

**Communication skills:** Work on teams and must communicate effectively with clients, managers, developers, and other workers.

**Detail oriented:** Working with a database requires the administrator to have an understanding of complex systems, and how a minor error can cause major problems.

**Problem-solving skills:** When problems come up, administrators must troubleshoot them and resolve the problems.

**Job description:** Install, configure, upgrade, and maintain all client databases which include performance monitoring, troubleshooting and client support.

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## Specific Duties:

- Responsible for ensuring all database system operational processes are managed according to established service level agreements. Specifically;
- Administration of database objects such as indexes, tables, views, constraints, stored procedures.
- Archiving, backup / recovery, replication, cloning, import/export and refresh.
- Administration of database users.
- Capacity Management and storage management.
- Design, test, and optimize/tune RDBMS components.
- Contribute to design, maintenance, and documentation of integrated database security and components in relation to SOX and SAS70 compliance.
- Review and assess new features or upgrade to existing RDBMS components as well as application database changes.
- For databases that may be supported in the future, reviews product literature to assess RDBMS differences and unique features.
- When possible, test new technologies and report results Develop, maintain, and optimize programming code for maintenance jobs and application reporting tools. Develop shell scripts as required.
- Assist with testing, implementation, and installation of new/improved systems, as well as product upgrades.

Strong agile/scrum development experience

Excellent written and verbal communication skills

## 2. Designation: System Administrator

**Job Code:** SA/022021/02

**Education:** B-Tech/BE/BCA/BSc/MCA/M-Tech/MSc in IT or Computer Science

**Certifications (Mandatory):** CCNA, MCP and GCUX/Oracle Linux OCA & OCP/RHCE/LPI RHCSA

**Experience** :8 – 12 years (Minimum 3 years proven experience as a System Administrator, Network Administrator, Senior Tech Support Engineer or similar role)

**Pay Scale** : Rs.35000 – 60000

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## Responsibilities

- Set up and manage distributed clusters/ workstations
- Setup LAN and cluster installations (With Linux, Hadoop, Hbase, Spark, ELK, Pig, Couchbase etc)
- Build an internal repo with technical documentation, manuals and IT policies
- Manage and configure Firewall and Proxy systems as per requirements
- Implementation, Management of GIT and other TFS/SVN servers
- Network Security Tool setup, administration and management
- Administration of Biometric, EPABX and other access control systems
- Install and configure software and hardware
- Manage network servers and technology tools
- Monitor performance and maintain systems according to requirements
- Troubleshoot issues and outages on network and cluster nodes.
- Configure and manage Active Directory, DHCP and DNS (Linux/Windows).
- Install and configure an Active Directory Domain Controller.
- Ensure security through access controls, backups and firewalls
- Upgrade systems with new releases and models
- Develop expertise to train staff on new technologies
- Ensuring security and efficiency of IT infrastructure
- Install and setup IT infrastructure management tools on production servers.

**Communication skills:** Work on teams and must communicate effectively with clients, managers, faculties, developers, and other workers.

**Problem-solving skills:** When Network problems come up, administrators must troubleshoot them and resolve the problems.

Excellent written and verbal communication skills

### 3. Designation: Technology Architect

**Job Code:** TA/022021/02

**Education:** B-Tech/BE/M-Tech/MSc in Information Technology or Computer Science

**Experience:** 12 - 15 years

**Pay Scale:** Rs.100000 – 175000

**Required Skills:** Programming experience with analytical tools and languages like **Python** (Mandatory), Java, R, C++ etc.

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Knowledge of SQL and NoSQL platforms (such as MySQL/PostgreSQL/ElasticSearch/MondoDB/CouchBase, knowledge in key-value stores, graph databases, RDF triple stores)

- Hands-on experience with the Hadoop stack (e.g. Map Reduce, Sqoop, Pig, Hive, Hbase, Flume)
- Strong agile/scrum development experience
- Proven experience in systems architecture, design and development
- Degree in Engineering, Information Systems or related.
- Extensive experience in the IT industry.
- Sound knowledge of estimation techniques.
- Sound knowledge of Java / J2EE/C++, Python, Web Services etc..
- Good understanding of unit testing methodologies.
- Extensive knowledge in design, creation and consumption of RESTful API
- Extensive knowledge in automated unit testing using JUnit, EasyMock, PowerMock, Mockito
- Extensive Knowledge in writing SQL queries and interacting with database systems such as Oracle, SQL Server
- Knowledge of Java, Spring, Spring Boot, Spring MVC or Python and Django
- Knowledge in ORM frameworks such as Hibernate, MyBatis
- Knowledge in interacting with messaging systems such as RabbitMQ, ActiveMQ, Kafka
- Thorough orientation towards Code reviews, Coding standards, Design Standards and Code Documentation
- Excellent analytical skills.
- Exceptional communication skills
- Knowledge in ML and DL and Work experience in Microservices would be added advantage
- Product development experience would be an added advantage

## **Key Responsibilities:**

- Understand the requirements, current state architecture of the enterprise and create roadmap for the future enhancements accordingly.
- Prepare Software Architecture Document, HLD & LLD, Non-functional requirements for the project.
- Define Integration Design and Security Design for the Web Services and Enterprise components involved.
- Participate in production of detailed functional design documents to match customer requirements.
- Participate in production of technical specification for development and integration requirements.

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- Review design documents for services such as Service Design Document, Service physical Document and define Service SLAs in Non-functional requirements.
- Engage with client architecture group.
- Mentor and train project team members on the Solution details for a smoother execution.
- Take ownership of data analysis activities and working closely with end users (both internal and external clients) to translate requirements into data-driven applications and data visualisation solutions (Reports and dashboards).
- Responsible for data injection, transformation, analysis and visualisation
- Design and implementation of medium to large custom application data models.
- Ensure quality deliverables.

#### 4. Designation: Software Engineer

**Job Code:** SE/022021/02

**Education:** B-Tech/BE/M-Tech/MSc/MCA (in Information Technology or Computer Science)

**Experience:** 3 – 7 years

**Pay Scale:** Rs.30000 – 70000

**Required Skills:** Java, Javascript, JQuery, Angular, HTML5, CSS3, Postgresql, MySQL, Oracle/MongoDB/ElasticSearch, Spring Boot

**Role:** Java (Spring Boot with JQuery/Angular) Web Developer

**Role Description:** The Java (Spring Boot) Developer would need to have at least 2+ years of experience in Java with Spring Frameworks

#### **Requirements & Responsibilities:**

- 2+ years of experience developing web applications using J2EE.
- Minimum 3 years proven industry experience as a Web developer
- 1+ years of experience in Spring Boot.
- Good knowledge of MicroServices.
- Experience working with tools like Git, Maven, JFrog, UDeploy.
- Expertise developing enterprise-level web applications and RESTful APIs using MicroServices, with demonstrable production-scale experience.
- Demonstrate strong design and programming skills using JSON, Web Services, XML, XSLT, PL/SQL in Unix and Windows environments.
- Strong background working with Linux/UNIX environments.
- Working knowledge with PostgreSQL, MySQL, DB2 or Mongo DB databases.

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- Passion to stay on top of the latest happenings in the tech world and an attitude to discuss and bring those into play.
- Strong agile/scrum development experience
- Strong collaboration and communication skills within distributed project teams
- Excellent written and verbal communication skills

## 5. Designation: Data Analyst

**Job Code:** DA/022021/02

**Education:** M-Tech/MSc in Information Technology or Computer Science (Specialization in Data Analytics)

**Experience:** 1 – 3 years (Minimum 1-year mandatory experience in Machine Learning/Deep Learning with Python)

**Pay Scale:** Rs. 30000 – 55000

**Required Skills:** Programming experience with analytical tools and languages like **Python** (Mandatory), Java, R, etc.

Knowledge of SQL and NoSQL platforms (such as MySQL/PostgreSQL, ElasticSearch/MondoDB/CouchBase, knowledge in key-value stores, graph databases, RDF triple stores)

Hands-on experience with the Hadoop stack (e.g. Map Reduce, Sqoop, Pig, Hive, HBase, Flume)

Strong agile/scrum development experience

### **Key Responsibilities:**

Take ownership of data analysis activities and working closely with end users (both internal and external clients) to translate requirements into data-driven applications and data visualisation solutions (reports and dashboards).

Responsible for data injection, transformation, analysis and visualisation

Design and implementation of medium to large custom application data models

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## 6. Designation: Jr. Software Developer

**Job Code:** JSD/022021/02

**Education:** M-Tech/MSc in Information technology or Computer science (Specialization in Data Analytics, Machine Intelligence, Geospatial Analytics and Cyber Security)

**Experience:** 0.5 – 3 years

**Pay Scale:** Rs. 25000 – 45000

**Required Skills:** Java, Javascript, JQuery/Angular, HTML, CSS, Postgresql/MySQL/MSSQL, Spring/Spring Boot

**Role:** Java (Spring Boot with JQuery/Angular) Web Developer

**Role Description:** The Java (Spring Boot) Developer would need to have at least 6 months of experience/internship in Java with Spring Frameworks

### **Requirements & Responsibilities:**

- Minimum 6 months of experience developing web applications using J2EE.
- Minimum 6 months of experience in Spring/Spring Boot or any other MVC framework with Java.
- Good knowledge of MicroServices.
- Experience working with tools like Git, Maven.
- Expertise developing enterprise-level web applications and RESTful APIs using MicroServices, with demonstrable production-scale experience.
- Demonstrate strong design and programming skills using JSON, Web Services, XML, JSON, PL/SQL in Unix and Windows environments.
- Strong background working with Linux/UNIX environments.
- Working knowledge with PostgreSQL/MySQL/DB2/Mongo DB databases.
- Passion to stay on top of the latest happenings in the tech world and an attitude to discuss and bring those into play.
- Strong agile/scrum development experience
- Strong collaboration and communication skills within distributed project teams
- Excellent written and verbal communication skills

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Note: People with Master of Science (Specialization in Data Analytics and Data visualization with Python/Java) and internship (Minimum 6 months) from IT industry is also considered for this position.

## 7. Designation: Jr. Security Analyst

**Job Code:** JSA/022021/02

**Education:** M-Tech/MSc in Information technology or Computer Science (Specialization in Cyber Security)

**Experience:** 0.5 – 3 years (should have minimum 6 months industry experience in Cyber Security Area)

**Pay Scale:** Rs. 30000 - 45000

**Required Skills:** Python, ML/DL, MySQL/SQL Server/Oracle,

Analytical ability,

Administering Information Security Software and Controls

Analysing Security System Logs, Security Tools, and Data

Creating, Modifying, and Updating Intrusion Detection Systems (IDS)

Creating, Modifying, and Updating Security Information Event Management (SIEM)

Experience with Intrusion Prevention Systems and Tools

Deep Understanding of Risk Management Frameworks

Defining Process for Managing Network Security

### Job Duties and Responsibilities

- Cybersecurity monitoring. Respond to cybersecurity incidents; conduct threat analysis as directed and address detected incidents for resolution
- Reviews alerts. Determine relevancy and urgency
- Create new incident
- Evaluate event flows to identify common risks and vulnerabilities to develop and implement solutions
- Ethical Hacking and Testing of vulnerabilities of implementations.
- Researching the Organization's system, network structure, and possible penetration sites.
- Conducting multiple penetration tests on the system.
- Identifying and recording security flaws and breaches.
- Identifying areas of high-level security. Reviewing and rating the security network.
- Creating suggestions for security upgrades. Compiling penetration test reports for the client. Conducting penetration tests once new security features have been implemented.

Development knowledge in Java/Python and Spring boot/Django framework would be considered as added advantage.

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## **How to Apply:**

Applications shall be submitted **on-line before 4pm latest by 17<sup>th</sup> February, 2021**. The application can be had from [www.iiitmk.ac.in/careers](http://www.iiitmk.ac.in/careers). Applications received thereafter shall not be entertained. The candidates must bring all original certificates/testimonials at the time of interview. The date and time of the interview will be intimated on mobile/email. The candidates are, therefore, advised to check their email regularly after the last date of receipt of application.

## **OTHER TERMS & CONDITIONS**

1. The full-time contract appointment will be initially for a period of two years. However, the term can be extended upto 5 years based on the performance and requirements.
2. Duplicated applications will be rejected (only one application/post will be considered for final interview)
3. The candidate must ensure that he/she possesses the required qualifications and experience for the post
4. If the documents submitted by any candidate are found incorrect/false at the time of the interview, his/her candidature will stand cancelled. If any shortcomings are detected after appointment, his/her services are liable to be terminated.
5. KUDSIT has the right to reject the candidature of any candidate at any stage and the decision of KUDSIT will be final.
6. KUDSIT has the right to reject the entire selection/advertisement procedure at any stage and the decision of KUDSIT shall be final in this regard.
7. No TA/DA shall be provided to the shortlisted candidates.

Sd/-

**Vice Chancellor**