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Downloaded On: Jun. 25, 2025 7:35am Posted Apr. 24, 2025, set to expire Aug. 24, 2025

Job Title IT Integration & Interoperability Specialist (Computer

science/Information Technology)

Department Energy Research Institute @ NTU Institution Nanyang Technological University

Singapore, , Singapore

Date Posted Apr. 24, 2025

Application Deadline Open untill filled

Position Start Date Available Immediately

Job Categories Research Scientist/Associate

Academic Field(s) Computer/Information Sciences

Job Website https://ntu.wd3.myworkdayjobs.com/Careers/job/NTU-

Main-Campus-Singapore/IT-Integration---

Interoperability-Specialist--Computer-science--

Information-Technology-_R00020522

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Interoperability-Specialist--Computer-science--

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Apply By Email

Job Description

Established in 2010, the Energy Research Institute @ NTU (ERI@N) is a pan-university research institute that focuses on systems-level research for tropical megacities. It performs translational research that covers the energy value chain from generation to innovative end-use solutions, motivated



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by industrialisation and deployment. ERI@N has multiple Interdisciplinary Research Programmes which focus on translational Research, Development & Deployment which focus on specific area of the energy value chain, and a number of Living labs and Testbeds which facilitate large scale technology deployment enabling validation and demonstration of real-world applications.

For more details, please view https://www.ntu.edu.sg/erian.

We are seeking a skilled IT Integration and Interoperability Specialist to join our team. The ideal candidate will be responsible for designing, developing, and maintaining integration solutions that ensure seamless interoperability between various devices, databases, and big data systems. By performing data mapping, transformation, and cleansing, they maintain high data quality and reduce errors. Specialists leverage advanced tools to streamline workflows and develop custom solutions tailored to research needs, driving innovation. Additionally, they ensure compliance with data security and privacy regulations, protecting sensitive research data and maintaining ethical standards. The candidate is also responsible to develop user interfaces using open-source tools to enhance user experience and accessibility. This role requires a deep understanding of data architecture, data modeling, ETL (Extract, Transform, Load) processes, and UI development.

Key Responsibilities:

- Design, develop, test, and deploy integration processes between disparate systems.
- Ensure seamless data flow and interoperability across various devices and platforms.
- Collaborate with data architects, modelers, and IT team members to achieve project goals.
- Perform data mapping, transformation, and cleansing activities.
- Develop and maintain ETL processes for real-time and batch data processing.

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Ensure the performance, security, and availability of integrated systems.

- Create and maintain documentation related to integration processes and workflows.
- Identify and resolve integration issues, ensuring data accuracy and consistency.
- Develop user interfaces using open-source tools to improve user interaction and accessibility.
- Stay updated with the latest integration tools, technologies, and open-source UI frameworks, recommending upgrades as necessary.
- Ensure compliance with data security and privacy regulations.
- Be a hands-on technologist and domain/industry expert in commercial solution development, system integration& implementation
- Be an R&D team lead to define & achieve the project goals
- Work closely with researchers, developers, partners and/or external vendors for timely project delivery
- Any other ad-hoc duty or responsibility, e.g., project presentation, progress report preparation, procurement and research collaborations etc. assigned by the project supervisor

Job Requirements:

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Bachelor's degree in computer science, Information Technology, or a related field.

- Min. 5 Years of working experience in a similar role
- Proven experience in data integration and interoperability.
- Strong understanding of data architecture, data modeling, and ETL processes.
- Proficiency in programming languages such as SQL, Python, or JavaScript.
- Experience with integration tools and platforms (e.g., Apache Kafka, Talend, Informatica).
- Experience in developing user interfaces using open-source tools (e.g., React, Angular, Vue.js).
- Experience in managing containerized applications in Kubernetes, Docker environment
- Excellent problem-solving skills and attention to detail.
- Strong communication and collaboration skills

Preferred Skills:

- Experience with big data technologies (e.g., Hadoop, Spark).
- Knowledge of cloud platforms (e.g., AWS, Azure, Google Cloud).



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Familiarity with data governance and compliance standards.

- Familiarity with CPU/GPU architectures and numeric libraries
- Knowledge within the utility or energy and power system industry is a strong advantage
- Experience in R&D cross-functional New Product/Technology Introduction (NPI/NTI) programs & commercial solution development
- Ability to turn high-level features/requirements into detailed technical specifications that can be used by FW/SW developers
- Excellent written and verbal communication skills (English) essential for data analysis and communication with stakeholders
- An effective and efficient team player with good attitude and interpersonal skills

We regret to inform that only shortlisted candidates will be notified.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

Singapore