

# Industry 4.0 job roles in demand

## Software development job roles

### Solution/Application Architect

#### Job Description

*Responsible for conceptualising and designing IT business solutions ensuring fulfilment of business requirements, high performance, and technical standards adherence*

#### Key Responsibilities

- Analyse business requirements, develop functional/system specification and ensure high-value architecture and design artefacts for all solutions
- Define, champion and govern solutions architecture standards, tools, best practices, and development methodologies
- Provide technical guidance to application development teams, consult on integration and conversion issues and participate in mapping technology-independent application architecture to the chosen technology platform

#### SKILLS AND OTHER REQUIREMENTS

- **Architectural and development skills:** Good knowledge of architectural patterns, architecture and product roadmapping, web service, API development, continuous integration/continuous development etc.
- **Architecture design:** Able to design microservices, APIs, Containers etc.
- **Technical design documentation:** Able to document requirements, designs and risks in frameworks like sequence diagrams, class diagrams
- **Programming languages:** Java, OpenShift etc.
- **Big data analysis tools:** Hadoop, Apache Spark, MongoDB, R etc.

#### COMPANIES HIRING FOR THIS JOB ROLE

- |               |       |                  |
|---------------|-------|------------------|
| • Amazon      | • DHL | • FedEx          |
| • DB Schenker | • UPS | • Singapore Post |

*(The above list is not exhaustive)*

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|--|----|
| Number of local job postings <sup>1</sup>  | 9  |
| Number of global job postings <sup>1</sup> | 22 |

This role is commonly found in **larger multinational corporations** with relatively complex business operations. Mostly, these jobs are posted overseas as technology solutions are often rolled down from global headquarters for integration across regional offices. Local **SMEs** generally do not have the need to hire these roles in-house.

**Typical education and experience requirements:** Bachelor's or Master's Degree in Computer Science, Computer Engineering, IT or equivalent; At least eight years relevant work experience and logistics background preferred.

**Key attributes:** Strategic thinker with high business acumen; systems thinking skills; ability to handle dynamic environments and complex stakeholders; performance and optimisation mindset.