

Jay Thakur

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SUMMARY

Integration Engineer with experience delivering healthcare interoperability and interface implementation projects across multi-system environments. Skilled in designing and deploying HL7 v2.x interfaces (ADT, ORU, ORM, DFT, SIU), supporting end-to-end implementations including requirements gathering, system configuration, validation, go-live, and production support. Hands-on exposure to HL7 FHIR (R4) through self-driven work, with practical understanding of resource structures and API-based data exchange within US healthcare workflows. Strong client-facing experience with a focus on interoperability, data quality, and reliable system integration in fast-paced healthcare environments.

TECHNICAL SKILLS

Interoperability & Standards: HL7 v2.5 (ADT, ORU, ORM, DFT, SIU), HL7 FHIR (R4 – working knowledge), JSON, XML, CSV, ICD-10, SNOMED CT, ASTM, EDI

Integration & Connectivity: Mirth Connect, Allscripts Interface Engine, API integrations, SFTP, VPN, TCP/IP (MLLP), file-based integrations

Healthcare Systems: EMR/EHR (Allscripts), LIS, PACS/RIS, Practice Management (PM), healthcare workflow mapping, interoperability QA

Data & Analysis: SQL (Oracle, MySQL), Python, data validation, data quality assurance, ETL concepts

Delivery & Implementation: Requirements gathering, interface design & mapping, UAT support, production support, stakeholder management, escalation handling, change management

Compliance: HIPAA, GDPR

EXPERIENCE

Sigma AI Data Ltd

Hammersmith, UK

Data Annotation

October 2024

- Performed large-scale data annotation and validation to support AI model training, maintaining error rates below 5%.
- Improved dataset reliability and consistency across projects, contributing to measurable increases in model performance.
- Processed high-volume audio and text datasets (2,500+ files daily) with structured tagging and classification.
- Strengthened data quality workflows applicable to healthcare data validation and interoperability QA processes.

Sutherland Healthcare Solutions

Hyderabad, India

Implementation Engineer

February 2022 - December 2022

- Delivered end-to-end implementation of lab and EMR interface projects across 25+ healthcare provider environments.
- Designed and implemented HL7 v2.x interfaces (ADT, ORU, ORM, DFT, SIU) enabling real-time clinical and administrative data exchange.
- Configured integrations across EMR, LIS, PACS/RIS, and downstream systems using Allscripts EMR, SFTP, VPN, and TCP/IP (MLLP).
- Managed full interface lifecycle including requirements gathering, message mapping, validation, UAT, go-live, and hypercare support.
- Performed SQL-based data validation and root cause analysis, reducing production issues by 30% and maintaining high system reliability.
- Standardized interface documentation, QA processes, and change management practices, improving onboarding efficiency and audit readiness.
- Acted as primary client-facing technical contact, coordinating with stakeholders and vendors to resolve integration issues and improve delivery timelines.

Kantar Analytics Practice

Bangalore, India

Data Analyst

April 2021 - July 2021

- Analyzed campaign and customer data to identify trends, improving performance metrics across multiple client engagements.
- Applied statistical techniques and data modeling to enhance reporting accuracy and decision-making.
- Delivered insights that supported revenue growth and improved marketing ROI through data-driven recommendations.

PROJECTS

Healthcare Integration Project – Allscripts EMR Implementation | *(HL7, EMR, PACS/RIS, SQL)*

Implementation Engineer at Sutherland Healthcare Solutions

- Implemented EMR integrations across 15+ provider sites, enabling real-time HL7-based data exchange.
- Translated business and clinical requirements into HL7 interface designs and validation rules.
- Performed end-to-end testing, message validation, and data quality checks to ensure interoperability.
- Configured secure API and SFTP-based integrations using JSON and XML payloads.

Strategic EHR Interoperability & Vendor Alignment | *(HL7, Systematic Testing, Vendor Specification Analysis, Realtime Data Exchange, SQL)*

Implementation Engineer at Sutherland Healthcare Solutions

- Analyzed vendor specifications and designed HL7 interfaces aligned with interoperability workflows.
- Conducted validation of ADT, ORU, and DFT messages through structured QA processes.
- Coordinated with vendors and internal teams to resolve integration issues and ensure smooth delivery.
- Maintained SDLC documentation including requirement documents, test evidence, and change logs.

Mirth Connect 4.5.2: Real-Time HL7 Pipeline | *(Mirth Connect 4.5.2, HL7 (ADT/ORU), JavaScript, XML, JSON, TCP/IP (LLP), File Polling (CRON), Custom Metadata, PDF Generation)*

Independent Technical Project

- Built a real-time HL7 integration pipeline for ADT and ORU message processing across healthcare systems.
- Developed transformation logic using JavaScript for multi-format data handling (HL7, XML, JSON).
- Implemented error handling and monitoring to support reliable message processing.
- Configured TCP listeners and file-based integrations to support different data exchange patterns.

FHIR (R4) – Self-Driven Learning & Implementation Exploration | *(FHIR R4, REST APIs, JSON)*

Independent Technical Project

- Explored FHIR resource structures (Patient, Observation, Encounter) and RESTful API interactions.
- Built sample workflows for data exchange using FHIR APIs and JSON-based payloads.
- Developed understanding of FHIR usage within US healthcare interoperability and modern data exchange models.

EDUCATION

Kingston University London

Master of Science in Data Science - Merit

London, UK

International Institute of Information Technology Bangalore

Postgraduate Diploma in Data Science - Merit

Bangalore, India

NBN Sinhgad School of Engineering

Bachelor of Engineering Computer Science - 2:1

Pune, India