

# Jay Thakur

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## SUMMARY

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Integration Engineer with experience delivering healthcare interoperability and interface implementation projects across multi-system environments. Skilled in designing and deploying HL7 v2.5 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

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**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

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### Sigma AI Data Ltd

*Data Annotation*

Hammersmith, UK

*October 2024 – April 2026*

- 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 validation and quality workflows, aligning with structured issue identification and resolution practices used in service environments

### Sutherland Healthcare Solutions

*Implementation Engineer*

Hyderabad, India

*February 2022 – December 2022*

- Delivered end-to-end implementation of lab and EMR interface projects across 25+ healthcare provider environments, ensuring reliable interoperability.
- Designed and implemented HL7 v2.5 interfaces (ADT, ORU, ORM, DFT, SIU) to enable real-time clinical and administrative data exchange.
- Configured and deployed 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, supporting ITIL-aligned Problem Management and reducing recurring production issues by 30%.
- Led production support, controlled deployments, and stakeholder coordination aligned with ITIL Incident and Change Management practices, improving system stability and delivery timelines.

### Kantar Analytics Practice

*Data Analyst*

Bangalore, India

*April 2021 – July 2021*

- Analyzed large campaign, customer, and sales datasets to identify trends, patterns, and growth opportunities, improving performance across multiple client engagements.

- Applied statistical techniques such as regression analysis, hypothesis testing, forecasting, and segmentation to enhance reporting accuracy and support strategic decision-making.
- Built and leveraged Marketing Mix Models (MMM) to evaluate channel performance, optimize budget allocation, and measure media impact on revenue and ROI.
- Developed dashboards, KPI reports, and automated reporting processes to track campaign effectiveness, customer behavior, and key business outcomes.
- Delivered actionable insights and data-driven recommendations in collaboration with cross-functional teams, driving revenue growth, improved retention, and stronger marketing ROI.

## PROJECTS

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### **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

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**Kingston University London**

London, UK

MSc Data Science – Merit

**International Institute of Information Technology Bangalore**

Bangalore, India

Postgraduate Diploma in Data Science – 3.29 / 4.0

**NBN Sinhgad School of Engineering**

Pune, India

BE Computer Science – 6.64 / 10.0