

# Jagnyesh Patra

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## QUALIFICATIONS SUMMARY

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- Expansive knowledge of Healthcare Interoperability, Data exchange standards, SDLC/Agile processes to create frictionless solutions.
- Over 6 years of cross-functional experience in Data Science/Engineering, Product Management, Sales and Operations to drive growth and create a sustainable impact for stakeholders and end clients.
- Well-versed with healthcare and pharma coding/terminologies/workflows such as CPT/HCPCS, CVX, ICD, NDC/GPI, SNOMED-CT and data exchange standards HL7/FHIR/C-CDA, Integration engines (Mirth/Nextgen Connect), EHRs (EPIC, Cerner, Allscripts)

## PROFESSIONAL EXPERIENCE

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### University of Illinois Chicago, Chicago, United States

*Biomedical Informatics Research Specialist, Center for Clinical and Translational Sciences* 08/2023 - present

- Worked on Epic to OMOP and Cerner to OMOP transformation to build Clinical Research Data Warehouse.
- Working on Epic Cogito, Caboodle, Clarity and Clinical Data Model certifications.

### Optum/UnitedHealth Group, Minneapolis, Minnesota, United States

*Senior Business Data Analyst, Data Engineering (SDR/Enterprise Clinical Data Hub)* 1/2022-08/2023

- Built User Stories and assign tasks to development team to capture business requirements and to align with USCDI conformance.
- Directed product leads to refine requirements for optimum parsing of data from HL7v2 messages (ADT, ORU, RSP), CCDs and flat files to FHIR US Core profiles.
- Worked in an Agile team as primary functional/technical liaison to create source-to-target mapping documents and help developers understand FHIR requirements to store clinical data in Snowflake and Azure Cosmos DB post conversion from HL7v2 formats.
- Worked with Product team to collaborate with InterSystems to improve IRIS FHIR parsing to promote interoperability.
- Created requirement documentations for developers for data migration tasks from existing Apache Hadoop platform to Snowflake and CosmosDB.

### CDC/CSELS, Atlanta, Georgia

1/2022-9/2022

*Senior Systems Engineer/FHIR Consultant (Part time contract)*

- Collaborated with health scientists on refining CDC submissions for USCDI v4 and USCDI+ with the Data Standards Management and Harmonization work group.
- Built mapping documents to capture maturity of use and technical specifications (FHIR and HL7 IGs) for USCDI Data Elements being submitted.
- Performed gap analysis of USCDI elements submitted on ONDEC to identify missing technical specifications of Data elements already submitted.
- Built recommendation guides for discovery of appropriate code systems, value sets and Implementation Guides.

### Optum/UnitedHealth Group, Minneapolis, Minnesota, United States

*Senior Systems Analysis Consultant, Data Engineering* 04/2021-12/2021

- Modeled the framework to derive RAF scores for HCC-CMS Risk Adjustment by guiding developers to parse the optimum demographic, clinical data from CCDs.
- Built API orchestrations using Mirth/Nextgen Connect to automate clinical data transfer between different EHRs in real time.
- Analyzed and wire-framed existing provider facing EHR UI to build more robust and accessible user experience by guiding UX/UI developers.
- Created flows using Power Automate to transmit Clinical Data from Provider facing UI to EHR (Allscripts Touchworks).
- Reduced provider clicks required to complete tasks such as creating an order, prescription etc. by up to 27%.

### Optum/UnitedHealth Group, Minneapolis, Minnesota, United States

*Senior Data Analyst/Business Analyst, Data Engineering(SDR/ECDH)* 10/2020-04/2021

- Worked in an Agile team as primary functional/technical liaison for SDLC to build User Stories and assign task to align business needs for CMS Interoperability and Patient access final rule.
- Created technical specifications/BRDs for data migration tasks in a big data environment.
- Created requirement documentations for developers for data migration tasks from existing Apache Hadoop platform to cloud(Azure).

- Gathered requirements for HL7 to FHIR interoperability across the Single Data Repository for healthcare data standardization.
- Lead the FHIR API development/QA with accordance to US Core Specifications for various resource types such as Immunizations, Encounters, Observations, Vital Signs and Provenance.

**OptumRx/UnitedHealth Group, Schaumburg, Illinois, United States**

*Data Analyst, Clinical Analytics and Reporting*

11/2019-07/2020

- Led POC project to setup Azure Health Data Services to implement DaVinci Payer Data Exchange(PDex) US Drug Formulary IG.
- Acquired and manipulated historical pharmacy claims records (>1M+) on Netezza Data Warehouse using SQL/SAS Enterprise Guide to match with eligible end consumers for various processes.
- Created and improved existing Business Requirement Documents/ Process Flow Diagrams and modified existing SAS codes and macros by implementing complex Data and Proc statements to account for the modifications.
- Improved Standard Operating Procedures for business-critical processes and projects which directly impacted revenue greater than 30M \$ over 3 months.
- Managed ETL tasks like moving Data from IBM Netezza Data Warehouse to using SQL Server Integration Services (SSIS) and MySQL.

**Aditya Birla Finance Limited, Mumbai, India**

*Data Analyst, Data Analytics/Data Science/ Product Management-Digital Lending*

04/2016 - 04/2017

- Optimized product features by A/B testing of online loan portals and apps to identify drop-off points and thus achieved a 14% reduction in drop-offs.
- Implemented Logistic regression and Ensemble Learning algorithms for SME credit risk assessment that improved the accuracy of loan default prediction by 4%.
- Created user stories for product features and ran Usability tests and UAT alongside business analysts.
- Set up a Pre-Sales call center and led a team of 10 members to guide them to assist potential customers through the digital customer journey and find potential drop off points in the UI/UX.

**HCRMS, Mumbai, India**

*Data Analyst, Data Analysis/Business Intelligence/Data Mining-Rewards Programs*

02/2015 - 03/2016

- Improved sales across the distribution channels by up to 7% by inventory and demand forecasting and applying predictive analytics.
- Imported and manipulated data (>1M+ rows) from the data warehouse using complex SQL queries and cleaned and consolidated data using Tableau Prep for exploratory data analysis using Python/R.
- Increased channel partnerships by 20% by utilizing interactive sales dashboard with Tableau to locate untapped markets.

**TECHNICAL SKILLS**

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| <ul style="list-style-type: none"> <li>○ Data Science/Machine Learning: EDA, Regression Analysis, Classification, Decision Trees, Random Forests, Clustering, NLP, PCA, Bayesian Methods</li> <li>○ Statistical analysis: Hypothesis testing, ANOVA, Design of Experiments</li> <li>○ Programming/Query Languages: C, C++, R, Python, SQL, MySQL, PostgreSQL, VBA, SAS</li> <li>○ Version Control: Git</li> </ul> | <ul style="list-style-type: none"> <li>○ R and Python Packages: Dplyr, Ggplot2, Caret, mlr, TensorFlow, Pandas, Matplotlib, Seaborn, Scikit learn, NumPy, NLTK</li> <li>○ Business Intelligence/Reporting Tools: Microsoft PowerBI, Tableau, Qlikview</li> <li>○ Computational Notebook: Jupyter</li> <li>○ Operations Research/Supply Chain: Linear and integer programming, Network flow models, Inventory/Demand Forecasting</li> <li>○ EHR knowledge: EPIC, Cerner, Allscripts</li> </ul> |
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**EDUCATION**

**UNIVERSITY OF SOUTH FLORIDA, TAMPA, FLORIDA**

Master of Science, Industrial Engineering

Focus on Analytics, Statistical Design Models, Probabilistic System Analysis, Operations Research, Supply Chain

**MUMBAI UNIVERSITY, MUMBAI, INDIA**

Bachelor of Engineering, Electronics and Telecommunications Engineering

**Certifications:**

Lean Six Sigma Green Belt Certified (IISE)