Sri Ramya Panja

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Summary

Health Informatics graduate and licensed dental professional with hands-on experience in clinical workflows, radiology, and public health research. Skilled in managing electronic medical records, coordinating patient referrals across dental departments, and analyzing population-based data in public health projects. Experienced in data collection, cleaning, and analysis using SQL, Python, and R, with working knowledge of Excel, Power BI, and REDCap. Integrates clinical insight with informatics skills to support research on health information exchange, workflow optimization, and quality improvement in healthcare delivery.

Education

Indiana University Indianapolis — Indianapolis, Indiana
Master of Science in Health Informatics — *Jan. 2024 – Dec. 2025*

Drs. Sudha & Nageswara Rao Siddhartha Institute of Dental Sciences — Allapuram, India
Bachelor of Dental Surgery — *Aug. 2017 – Jun. 2023*

Experience

Clinical Data Analyst Intern, GTech Technologies Pty Ltd (Remote) — Aug 2025 – Dec 2025 (Present)
Health Informatics Innovation Division, Denham Court, NSW, Australia

- Led full-stack development of an AI-integrated Electronic Medical Record (EMR) system using React.js, Node.js, and MySQL to enhance clinical decision support and workflow automation.
- Engineered and normalized relational database schema and optimized SQL operations in DBeaver, improving data reliability and query performance across patient records.
- Developed dynamic front-end modules for patient registration, diagnostics, and treatment management, streamlining data entry and reducing documentation errors.

Graduate Research Assistant — Aug 2024 – Dec 2024
Luddy School of Informatics and Computing, Indiana University, Indianapolis

- Managed REDCap data collection and behavioral health research datasets; supported research informatics systems including OpenClinica.
- Performed data cleaning, SQL queries, and statistical analysis in Python and R; documented methods using GitHub and BookStack.
- Ensured HIPAA and IRB compliance and implemented FAIR data management standards for multi-source research data.
- Collaborated with faculty and analysts to optimize data collection, integration, and reporting workflows.

Junior Dentist / Clinical Coordinator — Aug 2021 – Nov 2023
Partha Dental, Hyderabad, India

- Maintained accurate EMR documentation using OpenEMR and Epic, standardizing clinical records for over 1,000 patients.
- Enhanced and validated the user interface of a new EMR system, improving workflow efficiency across nine dental departments.
- Led public health data collection and analytics to inform quality improvement and community health initiatives.
- Strengthened clinical coordination and data continuity through structured reporting and validation processes.

Technical Skills

Programming Languages: Python, R, SQL, JavaScript
Data Analysis & Visualization: Pandas, NumPy, Matplotlib, Seaborn, Power BI, Excel (Pivot Tables, Power Query), R Shiny, Tableau (basic)
Healthcare Informatics & Interoperability: OpenEMR (EHR), REDCap, OpenClinica (familiar), HL7, FHIR R4, SNOMED CT, Health Information Exchange (HIE), Clinical Data Management

Data Integration & Engineering: ETL Pipelines, REST APIs, Data Modeling, Data Validation, Quality Assurance, Mirth Connect–style Integration Engines (conceptual familiarity)
Tools & Platforms: MySQL, PostgreSQL, SQLite, Git, GitHub, PyCharm, Jupyter Notebook, Application Servers (Tomcat/JBOSS – familiar), OAuth2 Authentication, KeyCloak (analogous experience via FHIR secure access)
Compliance & Documentation: HIPAA, IRB Protocols, FAIR Data Principles, Technical Documentation (GitHub / BookStack equivalents), Research Reproducibility
Soft Skills: Critical Thinking, Adaptability, Organization, Collaboration, Communication with Clinicians & Researchers, Attention to Detail, Continuous Learning

PROJECTS

Electronic Medical Records (EMR) System – Full-Stack Web Application | *JavaScript, React, Node.js, SQL, Docker*

Developed a secure, AI-assisted EMR system with Clinical Decision Support, improving diagnostic accuracy and workflow efficiency across patient management and treatment modules.

Built scalable APIs and full-stack modules enabling real-time access, CRUD operations, and AI-driven insights for better clinical outcomes.

OpenEMR → Primary Care EHR: FHIR ETL Pipeline | *Python, FHIR R4, SNOMED CT, REST APIs*

Engineered an automated FHIR ETL pipeline integrating OpenEMR with Primary Care EHR systems, ensuring interoperability and data consistency across clinical platforms.

Applied SNOMED CT terminology mapping via Hermes Server and robust error handling for standardized, validated medical data exchange.

Emergency Room Clinical Analytics Platform | *Python, MySQL, Pandas, Jupyter Notebook*

Developed an end-to-end ETL pipeline processing 1,000+ ER patient records and designed relational schemas for advanced SQL-driven analysis.

Performed statistical modeling and visualization revealing 97% prescription rates and key correlations between vitals and hospitalization.

Assessing Risk Factors for Parkinson's Disease | *R, Python, Statistical Modeling, ML, SQL*

Built an R-based workflow analyzing clinical, cognitive, and lifestyle predictors of Parkinson's using statistical tests and feature engineering.

Trained logistic regression and clustering models on 40,000+ records, identifying top predictors (hypertension, BMI) with 98% accuracy.

CERTIFICATIONS AND PROFESSIONAL DEVELOPMENT

American Medical Informatics Association (AMIA) – Student Member

Provisional Dental Radiology Training – American Dental Assistants Association (ADAA)

Harnessing the Power of Data with Power BI – Microsoft (Oct 2025)

Preparing Data for Analysis with Microsoft Excel – Microsoft (Sep 2025)

SQL Essential Training – LinkedIn Learning