

**HEMA ALAVALA**

[hemareddyalavala4@gmail.com](mailto:hemareddyalavala4@gmail.com)

<https://www.linkedin.com/in/hemasri-reddy-alavala-3453b6172/>

(616) 292-7168

---

## **SUMMARY**

Detail-oriented **Data Analyst** with experience in public health, medical coding, and urban development. Proficient in **EDA**, **ETL processes**, and **visualization** using SQL, Python, Tableau, and Power BI. Adept at handling **large datasets**, creating **dashboards**, and ensuring **regulatory compliance** (HIPAA, CPT/ICD-10). Seeking to leverage technical and analytical skills in a **Data Analytics** or **Clinical Data Analyst** internship role to support health informatics initiatives.

---

## **EDUCATION**

**Masters of Science, Health and Bioinformatics Expected Dec 2025 (expected).**

Grand Valley State University, Grand Rapids, MI.

**Post Graduate Diploma Food Safety & Quality Management, July 2023.**

Indira Gandhi National University, Delhi, India.

**Masters in chemistry, June 2021.**

Sarvepalli Radha Krishna university, Bhopal

**Bachelor of Life Science (Chemistry, Botany, and Zoology), April 2019.**

Krishna University, Machilipatnam, India.

---

## **SKILLS**

**Technical Skills:** MySQL, Tableau, Power BI, Python, Microsoft Excel, R, LOOKER, GenAI.

**Analytical Skills:** Data Analysis, Statistical analysis, Data Visualization, Database Management

**Soft Skills:** Strong Communication, Team Collaboration, Critical Thinking, Problem-Solving, Analytical, Time Management, Attention to Detail, and ability to work independently or in a team, Community outreach, Project Management.

**Compliance Knowledge:** HIPAA, CPT/ICD-10, FHIR, HL7, SNOMED

**Tools Used:** Optum360 EncoderPro, Cerner PowerChart, GSWS CSP Portal, UBDMIS-AP, GIS.

---

## **INTERNSHIPS**

**Biotech Analyst Intern**

**Build Fellowship | September 2024 – October 2024**

- Conducted in-depth biotech industry research and due diligence on biotech startups, focusing on competitive landscape analysis, regulatory frameworks, and emerging market trends.
- Created financial models for investment risk assessment, Vector support databases.
- Applied quality assurance and data validation techniques to ensure accuracy in data reporting, information visualization techniques . Used Numpy and Pandas for EDA process
- Gained hands-on experience in biotech financial analysis, regulatory impact assessment, and business intelligence tools to support data-driven investment strategies and decision making.

**Data Analysis and Visualization**

**Centaurus | April 2019 – Oct 2019**

- Analyzed large datasets to support drug process development and optimize market strategies, leading to more informed business decisions. Utilized Tableau and Microsoft tools for data visualization, which improved product performance insights and facilitated clearer presentations for stakeholders. Employed SQL for efficient data manipulation and querying of large datasets, increasing analysis speed by 30%. Applied R for statistical analysis on real-time data from drug testing phases, ensuring accurate insights for decision-making.

---

## **WORK EXPERIENCE**

### **Science Olympiad Assistant Director, CLAS Regional Science & Math center**

**Sep 2024 – currently working**, Grand Valley State University, MI

- Manage confidential administrative tasks and serve as a liaison for the director and staff, while utilizing software for report preparation and community partner data management. Collaborating with Co-op and Financial aid center, Help with federal regulations compliance by preparing and/or assisting in reporting/documentation for various grants and administrative supports
- Oversee data collection for the Michigan Department of Education, ensuring compliance and accuracy, and plan major projects such as the regional Michigan Science Olympiad tournament.

### **Environmental and Health Secretary, Municipal Administration & Urban Development**

**Dec 2022 - Dec 2023**, Vijayawada, India.

- Created automated dashboards in Tableau to track public health Key Performance Indicators (KPIs), which led to a 30% reduction in reporting time and enhanced strategic decision-making.
- Assisted in maintaining documentation for environmental safety initiatives, ensuring compliance with state regulations, and facilitating successful audits by external stakeholders.
- Tools Used: GSWS CSP Portal, UBDMIS-AP, SAMEER, GIS

### **Senior Medical Coding data Analyst, Optum Global Solutions**

**Sep 2019 – Oct 2022**, Hyderabad, India.

- Worked on creating automated data validation to improve predictions and risk of the disease, Clinical decision support systems – to assist physicians in diagnosis of disease and improve patient care. Retrieval and generation of embedded system to streamline workflow and give patient specific recommendations a part of CDSS-Retrieval-Augmented Generation.
- Used Artificial neural networks(ANN), AI tools, LLM to integrate data into system for predictive analysis and AutoSummarizes the patient data based on history of their visit and clinical conditions.
- Maintained knowledge of CPT and ICD-10 coding, resulting in a 98% compliance rate during audits and fewer reimbursement delays. Analyzed coded data in HER/EMR systems, leading to a 25% decrease in coding errors and improved data quality as well as performing quality assurance checks for reimbursement coding accuracy maintaining high standards for documentation and HIPAA compliance.
- Tools Used: Optum360 EncoderPro, Cerner PowerChart, EPIC and EMR, LOOKER, Dataplex.

---

## **RESEARCH EXPERIENCE**

### **Undergraduate Researcher on cell division and DNA extraction:**

- Conducted research on cell growth and division under Prof. Poorna Chandra Reddy K., utilizing sterile techniques to prepare media and analyze mitosis stages through microscopy and flow cytometry. Successfully extracted high-quality DNA samples and cultured mushrooms using innovative growth techniques. Performed DNA extraction by lysing cells, separating DNA from proteins, and precipitating the DNA with alcohol to obtain high-quality samples for further research.

### **Graduate Researcher Thesis on Food Safety and Quality:**

- Conducted graduate research at McDonald in India under Dr. Vijaya Deepthi, analyzing food products for compliance with safety and quality standards using advanced testing methods such as HPLC- High-performance liquid chromatography.
- Implemented rigorous quality control procedures, including sampling, inspection, and adherence to SOPs, to ensure product integrity. Collaborated closely with the quality assurance team to address discrepancies, ensuring all products met regulatory requirements and company standards.

---

## **ACHIEVEMENTS**

- Awarded “Best employee of the year 2022” at Vijayawada Municipal Corporation.
- Awarded “Kudos Award”, and “Star Award” at Optum.