

# Pavalla Saichandu

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## PROFESSIONAL SUMMARY

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Strong in design and integration with intuitive problem-solving skills with around 3 years of experience. Proficient in Machine Learning, Python, Power BI, SQL, Excel. Passionate about implementing and launching new projects. Ability to translate business requirements into technical solutions. Looking for Data Scientist role with a reputed firm.

## EDUCATION

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<b>Master of Science</b> (Information technology) IIIT Hyderabad	2020 - 2022 Grade: 9.3/10.0
<b>Bachelor of Engineering</b> (Chemical Engineering) Andhra University	2015 - 2019 Grade: 7.08/10.0
<b>Intermediate (Class XII)</b> Narayana Junior College Ongole	2013 - 2015 Grade: 91.1%
<b>Matriculation (Class X)</b> Kendriya Vidyalaya Ongole	2012 - 2013 Grade: 8.8/10.0

## EXPERIENCE

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**Software Development Engineer** August 2023 - October 2025  
Modak Analytics *Hyderabad*

**Role: Software QA Engineer (July 2024 - Oct 2025)**

- Developed automation test suites using **Selenium WebDriver** with **Python**, reducing manual regression effort by **40%** and increasing test coverage across critical web modules.
- Conducted **comprehensive functional, regression, UAT, integration, and UI testing** on SaaS-based platforms, identifying and reporting over 50 critical defects.
- Validated **REST API** responses and database records by correlating data across **PostgreSQL** to ensure back-end integrity and accurate UI reflection.
- Led advanced API testing initiatives with **Postman** and **Swagger**, validating over **100 RESTful endpoints** (authentication, payloads, status codes), cutting API defects by **25%**.
- Created and maintained **test plans, test cases, and BDD-style test scripts** using **Gherkin**, improving test coverage transparency across teams.
- Actively participated in **Agile Scrum ceremonies**, working closely with developers, BAs, and DevOps during planning, reviews, and retrospectives.
- Conducted regression and sanity testing on services deployed on **AWS** (EC2, S3) to ensure post-deployment reliability in production-like environments.

**Role : Data Engineer (Aug 2023 - June 2024)**

- **Data Pipeline Migration:** Led the migration of data pipelines from **Streamsets** to **Modak Nabu**, designing and implementing robust pipelines for seamless data collection from Oracle databases and Google Cloud Platform (GCP).
- **ETL Processes:** Extracted, transformed, and loaded (ETL) data efficiently, ensuring data integrity and consistency, and utilized Modak Nabu's capabilities and custom scripts to cleanse, normalize, and enrich data.
- **Data Loading to ADLS:** Loaded transformed data into Azure Data Lake Storage (**ADLS**) with high efficiency, optimizing for scalability and performance.
- **Testing and Validation:** Developed comprehensive unit test cases and conducted rigorous functional testing to validate the accuracy and reliability of the data pipelines.

**Software Engineer** January 2022 - March 2023  
Mirelz AI India pvt ltd *Hyderabad*

- **React Development:** Implemented screen designs using TypeScript and React, utilizing both class components and functional components to build dynamic user interfaces.
- **State Management:** Leveraged React hooks for state management, ensuring efficient handling of application states and enhancing overall performance.
- **Responsive Design:** Created responsive and user-friendly interfaces, optimizing the design to work seamlessly across different devices and screen sizes.

- Performance Optimization: Enhanced application performance by structuring components efficiently, leading to improved user experience and faster load times.

## PROJECTS

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### CuraSense – AI-Powered Whole Health Companion

June 2025

- **Built a multilingual AI health companion** integrating mental health journaling, symptom checking, and medical term translation using LLMs (GPT-4o/Mistral) with voice and text input support.
- **Two AI agents:**
  - **Mental Health Journaling Agent:** Guided users through emotional reflection using empathetic prompts and mood tracking.
  - **Symptom Checker Agent:** Provided safe, first-aid-level health suggestions (OTC meds, home remedies, and warnings), with local language support (Hindi, Telugu, Tamil).
- Integrated **language translation pipeline** using Google Translate API for converting regional inputs into medical English and vice versa.
- Tracked user symptoms, moods, and journaling data over time using structured storage (CSV/JSON), enabling basic trends and behavioral nudging.
- Designed a **POC UI using Streamlit and Flutter**, supporting conversational AI via text/voice, with fallback to local term-mapping for medical clarity.
- Exploring technologies including **Whisper API (speech-to-text)**, **FastAPI**, **Kafka**, **MongoDB**, **Firebase**, and message queue systems (Redis/RabbitMQ) for full-stack feasibility.
- **Key Skills:** AI Agents · LLM Prompt Engineering · GPT-4o/Mistral · Whisper · Streamlit · FastAPI · Google Translate API · NLP · Symptom Detection · Multilingual NLP · Health Tech

### Analytical CRM Development for a Bank ( [Github](#) ) ( [Demo](#) )

April 2024

- Customer Churn Analysis: Analyzed customer exit data to identify patterns and trends in churn, enabling the bank to develop targeted retention strategies for at-risk customers.
- Service Delivery Enhancement: Examined transaction details and customer feedback to identify service gaps, leading to the implementation of initiatives aimed at improving customer service quality and responsiveness.
- Customer Satisfaction Improvement: Leveraged insights from customer demographics and active profiles to personalize service offerings, enhancing overall customer experience and satisfaction.
- Data-Driven Strategic Recommendations: Provided actionable insights based on comprehensive data analysis, supporting the bank's objectives to reduce churn, optimize service delivery, and foster long-term customer loyalty.

### Columbia Asia Hospital Project ( [Github](#) ) ( [Demo](#) )

February 2024

- Revenue Generation Assessment: Analyzed hospital revenue streams, identifying top-performing departments and services, and highlighted areas with potential for increased profitability through targeted marketing and service expansion.
- Departmental Hiring Insights: Conducted a detailed analysis of department performance and patient load, recommending suitable departments for new hires based on growth potential, current staffing needs, and service demand.
- Patient Discount Strategies: Suggested tiered discount strategies based on patient demographics, treatment types, and frequency of visits, aiming to boost patient retention and attract new patients while maintaining profitability.
- Data-Driven Recommendations: Provided actionable insights using data analytics to inform strategic decisions, ensuring alignment with the hospital's financial goals and operational efficiency.

### Zomato Restaurant Analysis ( [Github](#) ) ( [Demo](#) )

December 2023

- Market Analysis: Conducted a thorough market analysis to identify countries and cities with low competition and high profitability potential, prioritizing areas with increasing demand for dining options and a growing urban population.
- Strategic Location Selection: Recommended locations based on demographic data, local culinary preferences, and spending patterns to ensure optimal restaurant placement, catering to target audiences effectively.
- Competitive Benchmarking: Analyzed competitor presence and market share in potential areas, identifying opportunities for differentiation and market entry strategies that leverage Zomato's strengths.
- Data-Driven Decision Making: Developed dynamic dashboards and visualizations to provide real-time insights into potential markets, enabling informed decision-making and efficient resource allocation for new restaurant openings.

## CERTIFICATIONS

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Data Analyst Professional Certification Newton School

October 2023

- Learned SQL, Excel, Power BI along with Python
- Implemented these skills in various projects like Zomato Data Analysis, Columbia Hospital Revenue Analysis & Bank Customer Churn

## **SKILLS**

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**Computer Languages:** Machine Learning, Python, SQL

**Data Tools:** Power BI

**Software Packages:** Pandas, Matplotlib, Excel, Linux, MySQL

## **EXTRA-CURRICULAR ACTIVITIES**

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Participated in Regional Cricket tournament while in School