

# SowmyaChatharaju

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## Education

JNTUH University College of Engineering, Jagtial	2020-24
Bachelor of Technology in Information Technology	7.7
Krishnaveni Junior College, Warangal – Intermediate	2018-20
MPC Stream	9.8
Krishnaveni Talent School, Warangal – SSC	2017-18
Telangana Board of Secondary Education	9.5

## Projects

### HealthCare Chatbot using Natural Language Processing.

Github Link: [#HealthCareChatbot](#)(NLP)

- Developed an intelligent healthcare chatbot using **NLP** to provide medical guidance based on user queries.
- Built the chatbot using Flask for real-time interaction and integrated TF-IDF and Cosine Similarity for accurate response generation.
- Processed health-related data from text files (symptom.txt, pincodes.txt) to suggest treatments and find nearby doctors.
- Utilized ChatterBot and SQLAlchemy for continuous learning and data management.
- Enhanced user experience by implementing features for symptom assessment and doctor search based on user inputs.

### Bank Customer Churn Prediction.

Github Link: [#BankCustorChurnPrediction](#)

- Developed churn prediction models using Logistic Regression, SVM, KNN, and Perceptron, achieving 82% accuracy.
- Assessed model performance with metrics like accuracy, precision, recall, and F1 score, addressing class imbalance.
- Applied bootstrapping techniques to estimate model stability and confidence intervals for improved reliability.
- Optimized models through hyperparameter tuning and cross-validation to ensure consistent performance.
- Collaborated in refining models and applied strategies to enhance predictions for customer retention.

## Experience (Internship)

Advanced Data Analysis Intern	November-October2024
Innomatics Research Labs	Online
<ul style="list-style-type: none"><li>Gained hands-on experience in Python programming for efficient data manipulation and analysis.</li><li>Developed data-driven strategies to tackle complex real-world challenges.</li><li>Conducted exploratory data analysis (EDA) to extract meaningful insights from raw data.</li><li>Created actionable reports to effectively communicate findings to stakeholders.</li></ul>	

## Tech Skills

- Languages: Python, C, Java, data analytics, Python Libraries — Numpy, Pandas, Matplotlib.
- Databases: SQL, Technologies: Machine learning
- Relevant Coursework: Data Structures, Object Oriented Programming, Software Engineering, software development life cycle.
- Soft Skills: Logical Thinking, Communication Skills, Continuous Learner.

## Certifications

- Machine Learning Certification from PreplInsta:** Attained specialized certification demonstrating expertise in machine learning algorithms and model development.
- SQL Certification from PreplInsta:** Received certification by showcasing proficiency in SQL database management, querying.
- Python Certification from PreplInsta:** Completed certification that emphasizes skills in Python programming for data analysis
- Data Science Internship** from Innomatics Research Labs, [November, 2024] – [October, 2024]: Developed predictive models and conducted data analysis to drive insights and enhance decision-making.

## Declaration

- ✓ I hereby declare that all the details mentioned above are in accordance with the truth and fact as per my knowledge and I hold the responsibility for the correctness of the above-mentioned particulars.