Somanatha Basavanuty

LinkedIn: Somanatha Basavanuty
GitHub: somanatha-dev

Contact: +91 8105144428

Email: somanatha.clg@gmail.com

Education

RNS INSTITUTE OF TECHNOLOGY
Computer Science Engineering – CGPA: 8.7
Duration: 2023 – 2027

Skills-Summary

- Languages: Python, SQL, C, C++, JavaScript.
- Frontend Technologies: HTML5, CSS3, SCSS.
- Frameworks: Tailwind CSS, Bootstrap CSS.
- Backend & Databases: Node.js (Basics), Express.js (Learning), MongoDB, MySQL.
- Tools: Git, GitHub, GitHub API, VS Code, Excel, Spreadsheet, PowerPoint.
- Skills: Data Science, Data Visualization (DataViz), Machine Learning (basics).
- Platforms: Jupiter Notebook, Google Colab, Spyder, PyCharm.

Work-Experience

INTERN – SPACECRAFT DATA ANALYST | ISRO (MCF)   *(JULY 2025 – AUGUST 2025)*

- Applied **Linear Regression** and **PCA** on a **large-scale spacecraft telemetry dataset (~60 million records, 18 features)** to predict key telemetry parameters and analyse inter-feature relationships.
- Built a robust data preprocessing pipeline involving duplicate removal, missing value handling, datatype conversion, and **1-minute interval resampling** for uniform time-series data.
- Performed detailed **Exploratory Data Analysis (EDA)** using **Matplotlib** and **Seaborn** to identify trends, outliers, and correlations in spacecraft telemetry.
- Trained and validated the Linear Regression model using Scikit-learn, **evaluating performance with R^2 score, MSE, residual plots, and 3D regression visualizations** for accuracy assessment.

Projects

Portfolio - Website |
- Designed and developed a **responsive portfolio website** to showcase skills, bio, and projects using HTML, CSS, and JavaScript.
- Focused on clean layout, responsive structure, and smooth animations.

Advanced Music Player |
- Developed a **JavaScript-based music player** that plays pre-linked songs with **play, pause, next, previous, repeat, and shuffle** functionalities.
- Implemented a **volume controller and playback progress bar** for better user interaction.

Moody Player (MERN Stack) |
- Full-stack **music web app** using **MongoDB, Express.js, React.js, Node.js**.
- Integrated **mood-based song recommendations**, **API-driven playback**, and **user authentication**.
- Built responsive **Tailwind CSS UI** with playlists and MongoDB Atlas backend.

Face & Voice AI Chatbot |
- Built an **AI-powered chatbot** with **real-time facial expressions** and **voice responses**.
- Integrated **text-to-speech (TTS)**, **facial animation (OpenCV)**, and **LLM-based natural replies**.
- Created a lifelike **interactive avatar** that reacts visually and audibly to user queries.

AI Stock Market Predictor Chatbot |
- Built an **AI-powered Telegram chatbot** predicting **stock market trends** using **Python, scikit-learn, Pandas, NumPy**, and **live market APIs**.
- Deployed on **Google Cloud** with **Docker containers** for scalability and continuous uptime.
- Implemented **time-series forecasting**, **regression models**.
- Delivered **real-time market insights** and automated prediction reports directly within Telegram.

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Certifications

IBM Data Analyst Professional Certificate
- Verified skills applying different analytical techniques by analysing real-world datasets, creating visualizations & interactive dashboards, and presenting reports to share findings of data analysis, and is now equipped with skills for an entry-level role in data analytics.

CSS (Basic) Certification – HackerRank   *(Mar 2025)*
- Verified skills in styling and layout techniques for web development.

Python Essentials 1 – Cisco Networking Academy & OpenEDG Python Institute *(Dec 2023)*
- Gained proficiency in Python programming, debugging, and problem-solving.

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