THOMAS MATHEW

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Software Developer

Python | Artificial Intelligence | Machine Learning | Data Analyst

I am a dedicated and passionate software developer with strong proficiency in Python. I take pride in my problem-solving abilities and consistently strive for excellence in my work. I am confident in my skills, adaptable to new challenges, and committed to continuous learning. Currently, I am deepening my knowledge in Artificial Intelligence and Machine Learning to stay ahead in the evolving tech landscape.

SKILLS

- **Languages:** Python, Java, C, SQL, HTML
- **Technologies and Tools:** Django, Flask, Pandas, Numpy, Scikit-learn, Seaborn, Matplotlib, Tensorflow, Keras, Scrapy, BeautifulSoup, TextBlob, Sentiment Analysis, API, Git, Jupyter Notebook
- **Machine Learning Algorithms:** Linear Regression, Logistic Regression, K-means, Support Vector Machine, Decision Tree, Random Forest
- **Deep Learning Algorithms:** Artificial Neural Network, Convolutional Neural Network (CNN), Long Short-Term Memory (LSTM)
- **Data Handling & Analysis:** Data wrangling, Data cleaning, EDA (Exploratory Data Analysis), Data visualization, Feature engineering

EDUCATION

University College of Engineering – *Thodupuzha, Idukki, Kerala* [2021-2025]
Bachelor of Technology - Computer Science and Engineering
CGPA: 6.5 (APJ Abdul Kalam Technological University)

St. Thomas Higher Secondary School - *Erattayar, Idukki, Kerala* [2019-2021]
Higher Secondary
92% (Directorate of Higher Secondary Education)

Marian Public School - *Marygiri, Idukki, Kerala* [2018-2019]
High School
81.4% (Central Board of Secondary Education)

PROJECT WORK

Stock Prediction and News Reading Platform

- Built an LSTM-based stock price prediction model integrating sentiment analysis of financial news, historical stock data, and technical indicators.
- Enhanced model performance by incorporating technical indicators (RSI, moving averages, etc.) alongside market news.
- Achieved above 90% predictive accuracy in forecasting next-day stock price trends.
- Tools & Technologies: Python, Scikit-learn, TensorFlow, Keras, Pandas, NumPy, Matplotlib.

Neorvex – Product Recommendation System

- Developed a recommendation engine for Flipkart products using web scraping and sentiment analysis.
- Collected and processed thousands of product reviews, extracting features and sentiment scores to rank products.
- Suggested top-rated products with improved reliability through NLP-driven sentiment classification.
- Tools & Technologies: Python, Scrapy, BeautifulSoup, TextBlob, Pandas, NumPy.

SEMINAR

Automated Neural Network Design via Genetic Algorithms

- Designed and implemented a Genetic Algorithm-based approach to automate CNN architecture search for MNIST image classification.
- Optimized CNN hyperparameters including network depth, number of parameters, padding strategy, pooling type, batch normalization usage, and activation functions.
- Tuned learning rate and training epochs dynamically using evolutionary strategies to improve model performance.
- Achieved efficient hyperparameter optimization through GA-driven exploration, reducing manual trial-and-error in CNN design.