

S. MITHOON RAJ

Chennai, TN | +91 7904031663 | mithoon25@gmail.com | [linkedin.com/in/mithoon-raj-s](https://www.linkedin.com/in/mithoon-raj-s) | github.com/mithoon-777 | portfolio.mithoon.workers.dev

PROFESSIONAL SUMMARY

Computer Science and AI graduate with hands-on experience building LLM-powered applications, predictive ML models, Generative AI workflows, and intelligent desktop systems, alongside full-stack web development (Node.js, Express, MongoDB). Proficient in Python, Scikit-learn, OpenAI GPT, LangChain, Langflow, and Hugging Face. IEEE-published first author (ISCPs 2026). Experienced in deploying AI, ML, and full-stack applications on cloud platforms including Vercel and Hugging Face Spaces.

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, SQL

AI / ML Frameworks: Scikit-learn, TensorFlow, PyTorch, Keras, OpenCV, Hugging Face Transformers

Generative AI & LLMs: OpenAI GPT, LangChain, Langflow, Prompt Engineering, Hugging Face, Google Gemini API

ML Algorithms: Random Forest, Logistic Regression, K-Means Clustering, Linear & Polynomial Regression, Time-Series Forecasting

Data & Analytics: Pandas, NumPy, Matplotlib, Seaborn, EDA, Data Cleaning, Power BI, Statistical Analysis, RFM Analysis

App Development: Node.js, Express.js, EJS, Streamlit, React.js, Electron.js, TypeScript, Vite, REST APIs

Databases: MySQL, MongoDB, Mongoose

Tools & Platforms: Git, GitHub, Jupyter Notebook, VS Code, Vercel, Hugging Face Spaces

PROFESSIONAL EXPERIENCE

Thiranex | Remote

Jun 2026 – Jul 2026

Data Analytics Intern

- Built predictive models (Linear Regression, Polynomial Regression, Time-Series Forecasting) evaluated with R2, MAE, MSE, RMSE.
- Developed K-Means clustering model to segment 4,000+ customers from 500,000+ records using RFM feature engineering and Elbow Method.
- Processed large-scale datasets with Python, Pandas, and Scikit-learn; automated data pipelines and generated business insights.
- Deployed ML-driven web applications on Vercel using React.js, TypeScript, and GitHub version control.

Cognifyz IT Solutions Pvt. Ltd. | Remote

Jun 2026 – Jul 2026

Full Stack Development Intern

- Built and deployed ContactHub, a full-stack Node.js/Express web application with EJS templating, RESTful CRUD APIs, and an interactive admin dashboard powered by real-time fetch() data.
- Migrated the application's data layer from in-memory storage to MongoDB (Mongoose), and implemented secure user authentication (bcrypt password hashing, express-session) with role-based API authorization.
- Debugged full-stack issues spanning client-side routing, session management, and database connectivity in a production-style development workflow.

NeubAltics Research Hub | Remote

Jan 2025 – Apr 2025

Generative AI Intern

- Completed a structured 50-hour Generative AI program covering LLM fundamentals, prompt engineering, and AI workflow development.
- Built practical AI applications using OpenAI APIs; strengthened proficiency in prompt optimization and modern LLM-powered workflows.
- Explored real-world use cases of Generative AI and applied concepts through hands-on technical exercises and project deliverables.

PROJECTS

NeuroSync – AI-Based Mental Fatigue Detection System

Jun 2025 – Jan 2026

Sathyabama University

- Designed and built a cross-platform AI desktop app (Electron.js + React.js) using behavioral pattern analysis (keyboard/mouse) for real-time fatigue detection.
- Implemented background monitoring, alert systems, work-time tracking, IPC communication, and persistent CSV/JSON logging.

- Published as First Author – IEEE International Conference on Computing, Communication, Control and Cyber-Physical Systems (I5CPS 2026).

Scholarship Eligibility Analyzer – LLM

Jan 2025 – May 2025

Sathyabama University

- Built Streamlit web app integrating OpenAI GPT models and Langflow prompt chains for automated scholarship eligibility evaluation.
- Engineered modular LLM workflows with prompt optimization; deployed on Hugging Face Spaces as a cloud-accessible real-time AI tool.

Customer Segmentation – RFM & K-Means

Jun 2026 – Jul 2026

Thiranex

- Cleaned and preprocessed 500,000+ retail records using Python and Pandas; applied RFM feature engineering and StandardScaler normalization.
- Built K-Means clustering model (Scikit-learn) segmenting 4,000+ customers; visualized cluster distributions using Matplotlib and Seaborn.
- Published complete ML workflow on GitHub with detailed analysis, visualizations, and business recommendations.

Predictive Analytics Dashboard

Jun 2026 – Jul 2026

Thiranex

- Implemented Linear Regression, Polynomial Regression, and Time-Series Forecasting models; evaluated with R2, MAE, MSE, RMSE.
- Deployed end-to-end ML dashboard on Vercel using React.js, TypeScript, and Vite with user-driven CSV upload support.

Customer Churn Prediction System

Jan 2024 – Apr 2024

Sathyabama University

- Built Random Forest and Logistic Regression models for churn prediction; applied feature engineering, preprocessing, and ML evaluation metrics.
- Visualized churn risk patterns and delivered data-driven retention insights for stakeholders.

Data Cleaning & Reporting Automation – Power BI

Jun 2026 – Jul 2026

Thiranex

- Processed 9,994 sales records using Power Query; built 5 DAX KPI measures and automated reporting pipelines for business intelligence.

EDUCATION

Sathyabama Institute of Science and Technology

2022 – 2026

B.E. Computer Science Engineering – Specialization in Artificial Intelligence

CGPA: 7.8/10 | Coursework: Machine Learning, Robotics, Data Science

AWARDS & CERTIFICATIONS

- First Author – IEEE Publication: NeuroSync AI-Based Mental Fatigue Detection, I5CPS 2026 (Mar 2026)
- Full Stack Development Internship – Cognifyz IT Solutions Pvt. Ltd. (Jul 2026)
- Generative AI 50-Hour Online Internship Program – NeubAltics Research Hub (Apr 2025)
- Professional Training on Machine Learning – Cognibot (Oct 2024)
- Skill Development Program on Machine Learning using Python – NSIC (Aug 2024)