Yogeshwaran R

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About me

I'm an M.Tech IT student with a passion for machine learning, AI, and harnessing the power of LLMs to solve real-world problems. I believe in the power of collaboration to drive faster, more impactful solutions and enjoy blending creativity with technical expertise to bring innovative ideas to life.

Education

M.Tech in Information Technology *Aug 2023 – May 2025*
College of Engineering, Guindy ***CGPA: 7.6/10***

B.E in Computer Science and Engineering *Aug 2019 – May 2023*
Kongu Engineering College ***CGPA: 8.6/10***

Experience

Web Development Intern *Remote, India*
CodeSpeedy Technology Private Limited *June 2024 – July 2024*

- Worked on tasks involving Node.js, Next.js, and MySQL.
- Published three technical blog posts, increasing engagement by 20% with over 125 views.

Projects

Anemia Detection Using Machine Learning GitHub Deployed App

- Designed a machine learning pipeline to classify anemia using Random Forest and advanced preprocessing techniques, achieving a highly accurate prediction system.
- Incorporated an innovative feature to extract blood attributes from uploaded lab reports using Google Gemini 2.0 for seamless text recognition, integrating the results into the prediction model.
- Addressed class imbalance with SMOTE, boosting model performance by 20% and improving prediction accuracy significantly.
- Developed an interactive web application using Flask, enabling users to input data manually or upload lab reports for real-time anemia classification.
- **Tools Used:** Python, Scikit-learn, Google Gemini 2.0, SMOTE, Flask, Matplotlib, Seaborn.

Robust Classification of Human-Written vs LLM-Generated text GitHub Deployed App

- Developed a machine learning framework to classify essays as human-written or AI-generated (LLM-generated) using autoencoder embeddings, readability metrics, stylometry, and lexical diversity.
- Achieved 87.2% accuracy in distinguishing between human and AI-generated essays using a feed-forward neural network.
- Deployed a user-friendly frontend application hosted on Google Cloud App Engine for easy access and interaction with the model.
- **Tools Used:** Python, PyTorch, Autoencoders, Feed-Forward Neural Networks, Google Cloud App Engine, Stylometry, Readability Metrics.

CRM Genie: Natural Language to SQL Query Generator GitHub

- Developed an AI-powered tool that converts natural language queries into SQL queries for querying customer data from an SQLite database.
- Integrated CodeLlama LLM for natural language processing to generate accurate SQL queries based on user input.

- Developed during the Build2Learn Event at IBM as a collaboration with the team.
- **Tools Used:** Python, CodeLlama LLM, SQLite, HTML, Tailwind CSS.

Event Management Website GitHub Deployed link

- Developed an award-winning event management website that secured Second Prize in Web Designing at NAEVUS'21, conducted by CSI-KEC Student Branch.
- Designed a responsive website offering features such as dynamic content galleries, and interactive testimonials, tailored for weddings, birthdays, and corporate events.
- Optimized user experience with features like dark mode, seamless navigation, and cross-device compatibility.
- **Tools Used:** HTML, CSS, JavaScript, Bootstrap.

Technologies

Languages: C, Python, SQL

Databases: MySQL, MongoDB

Machine Learning: PyTorch, Scikit-learn

Containerization & Version Control: Docker, Git

Platforms: Windows, Linux

Hobbies

Writing Tech Blog Posts: I enjoy sharing what I learn through tech blog posts, aiming to help others while reinforcing my own understanding of new technologies and concepts. `Check out my blog here.`

Reading Non-Fiction Books: I read non-fiction to apply lessons learned to real life, constantly striving to improve myself and become a better person.
Favorite books: The Joy of Less, Goodbye Things, Atomic Habits.