Pradeepa Murugesan
Machine Learning Engineer

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🪪 Profile

An enthusiastic **B.Tech Artificial Intelligence and Machine Learning** student with a passion for solving **real-world challenges** through **data-driven solutions**. Skilled in **Python programming**, **machine learning**, and **cloud technologies**, with a strong focus on **continuous learning** and **collaboration**. Adept at adapting to **dynamic environments**, staying aligned with **industry trends**, and consistently enhancing **technical capabilities**.

🎓 Education

B.Tech. - Artificial Intelligence and Machine Learning - CGPA: 9.0, *Sri Shakthi Institute of Engineering and Technology*	2022 – 2026 | Coimbatore, India
H.S.C. - Percentage: 87%, *PSGG Kanya Gurukulam Higher Secondary School*	2021 – 2022 | Coimbatore, India
S.S.L.C. - Percentage: 85%, *PSGG Kanya Gurukulam Higher Secondary School*	2019 – 2020 | Coimbatore, India

🧠 Technical Skills

Programming: Python, SQL (Beginner – Basic querying, filtering, joins, and aggregate functions)

ML Proficiencies: Data Preprocessing, Feature Engineering, Hyperparameter Tuning, Cross-Validation.

Machine Learning: Algorithms - K-Nearest Neighbors (KNN), Decision Trees, Logistic Regression, Linear Regression, Naive Bayes, Random Forest, Ensemble Methods.

AWS Cloud Fundamentals: Experience with core AWS services – EC2, S3, VPC, IAM,

✨ Soft Skills

- Strong teamwork and collaboration
- Efficient time management
- Adaptable and quick learner
- Resilience and a growth mindset

🔭 Areas of Interest

- MLOps Practices
- Natural Language Processing (NLP)
- Advanced Cloud & AI Deployments
- Automation and DevOps

📂 Projects

1) Phishing Website Using Machine Learning 03/2024 – 05/2024
Tech Used: *Python, XGBoost, Scikit-learn, Pandas, NumPy, Flask, HTML*
- Developed a **machine learning-based system** to detect **phishing websites** by analyzing various features and **processing website data** for classification.
- Evaluated multiple **ML algorithms** and selected **XGBoost** for its superior performance, achieving **95% accuracy** through optimized **feature selection** and **hyperparameter tuning**.

2) AI-Powered Retail Insights and Query System 10/2024 – 12/2024
Tech Used: *Python, YOLOv5, Gemini API, Flask, SQLite, Streamlit, HTML, CSS*
- Developed an AI-powered retail analytics system using YOLOv5 for real-time object detection to monitor product availability and detect empty shelf spaces.
- Implemented a text-to-query feature using the Gemini API, enabling seamless inventory and sales data retrieval. Integrated sentiment analysis to evaluate customer feedback and support data-driven decision-making.
- **Collaborated in a team of 4** using **agile practices** like daily stand-ups and sprint planning to ensure efficient and timely project delivery.

🎖 Certifications

- SIH - Senior Software Edition ⬈
- Complete Machine Learning Bootcamp, Udemy

🖥 Workshops

MLOps, *RAMPeX*	2024 | Coimbatore
Applications of AI for Predictive Maintenance, *Nvidia* ⬈	2024 | Coimbatore

📖 Publications

Phishing Website Using Machine Learning, *IJSREM* ⬈	02/07/2024