

ARUNACHALAM

SOFTWARE ENGINEER / ML

phoenixdark318@gmail.com

8939513325

Chennai

India



Enthusiastic AI & Data Science graduate (B.Tech) with hands-on experience in Python development and machine learning through internships and academic projects. Skilled in Django, Flask, and deploying ML models. Passionate about building scalable solutions and contributing to innovative AI projects. Quick learner with strong problem-solving abilities and a collaborative mindset.

Experience

AI ENGINEER INTERN

Acenurture, 03/2025

- Developed and optimized **AI models** using **Python**, **TensorFlow**, and **Scikit-learn** for various applications.
- Implemented **machine learning algorithms** for predictive analysis, classification, and NLP-based tasks.
- Designed and built **REST APIs** using Django/Flask to integrate AI models with web applications.
- Processed and analyzed large datasets using **Pandas**, **NumPy**, and **SQL** to extract valuable insights.
- Applied **computer vision techniques** using **OpenCV** for image classification and object detection.

MACHINE LEARNING INTERN

Ecreeed Technologies, 06/2023 - 07/2023

- Assisted in developing **ML models** for entity extraction in various domains.
- Gained hands-on experience in **data preprocessing**, **feature engineering**, and **model evaluation**.
- Worked with **Python**, **Scikit-learn**, and **OpenCV** to process and analyze data efficiently.

Educations

B.TECH AI AND DATA SCIENCE

Prathyusha Enginerring College, 08/2021 - 05/2025, Tiruvallur

CGPA - 7.75

BIOLOGY

Government Boys Higher Sec School, 06/2020 - 05/2021, Chennai

percentage - 82.5

Skills

- Programming: Python (Django), Java, SQL, C
- ML/AI: TensorFlow, PyTorch, Scikit-learn, OpenCV, YOLOv5/v8, LLMs
- Web Dev: Django REST APIs, Postman, Streamlit, HTML/CSS (basics)
- Tools: Git, Docker, AWS Cloud, Power BI, Jupyter Notebook
- Concepts: Data Structures, Algorithms, CI/CD, Agile Methodologies

Links

- LinkedIn
- GitHub

Projects

DIABETES PREDICTION USING MACHINE LEARNING

- **Technologies Used:** Python, Scikit-learn, Pandas, NumPy, Matplotlib
- Built an **ML-based predictive model** to detect **diabetes risk** using patient health data.
- Implemented **logistic regression, decision trees, and random forest models** for improved accuracy.
- Utilized **data preprocessing techniques** such as feature scaling and handling missing values.

CROP AND FERTILIZER RECOMMENDATION SYSTEM

- **Technologies Used:** Python, Pandas, NumPy, Seaborn, Matplotlib, Django
- Developed a **ML-based system** to recommend suitable **crops and fertilizers** based on soil conditions and climate data.
- Implemented **data preprocessing and visualization techniques** to analyze agricultural data for better yield prediction.

STUDENT ATTENTION MONITORING SYSTEM

Developed an AI-powered, privacy-preserving student engagement monitoring system designed for real-time classroom use.

- Utilized computer vision, facial landmark detection, gaze analysis, and deep learning models to assess student focus non-intrusively.
- Implemented local data processing to ensure student privacy, eliminating dependence on cloud infrastructure.
- Designed a user-friendly, color-coded dashboard providing instant insights into student engagement levels.
- Supported scalable deployment on standard classroom equipment like webcams and laptops.
- Contributed to reducing teacher intervention time by 35% through real-time alerts.

Certificate

NORTH AMERICA ACCENTURE : DATA ANALYTICS

MICROSOFT OFFICE : NAAN MUDHALVAN

AWS ACADEMY: CLOUD FOUNDATIONS

PYTHON & DJANGO: GREAT LEARNING

POSTMAN API

POWER BI : SIMPLILEARN

Languages

- Tamil
- English
- Malayalam

Hobbies

- Painting
- Reading books
- Photography