SOUNDARYALAKSHMI R
22PD34

Gender	Female
Date of Birth	26th December 2004
Languages known	English, Tamil
Email	**22pd34@psgtech.ac.in**
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Github	**github.com/Soundaryalakshmi-R**
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Address

No 1, Harini Avenue, Vadavalli,
Coimbatore, TamilNadu - 641041

OBJECTIVE

To obtain a position as a student intern from May 2025 to November 2025.

ACADEMIC QUALIFICATION

Currently pursuing 3rd year of 5 year Integrated M.Sc. Data Science at the Department of Applied Mathematics and Computational Sciences at PSG College of Technology.

SKILL SET

Languages	C++, C, Python, R
Libraries & Frameworks	Flask, pandas
Tools	Power Bi

AREAS OF INTEREST

- Full Stack Development
- Problem solving
- Machine learning
- Data Analytics

ACADEMIC RECORD

- **M.Sc Data Science**
  PSG College of Technology, Coimbatore

  2022 - Present
  8.4 CGPA

- **XII (Higher secondary, CBSE)**
  Bharathi Matric Higher Secondary School, Coimbatore

  2022
  97.5 %

- **X (SSLC, State board)**
  Bharatiya Vidya Bhavan Matric Hr. Sec School, Coimbatore

  2020
  89.6 %

NON ACADEMIC PROJECTS

- **Dynamic programming for Collision avoidance of autonomous ships**

Developed a dynamic programming framework for ship route optimization, ensuring safe navigation through obstacle-avoiding, cost-minimized paths.Enhanced maritime navigation safety and efficiency in congested waters.

ACADEMIC PROJECTS

- **GrocerEase**

Developed a comprehensive online grocery shopping web application using the Flask Python framework for backend development, PostgreSQL for database management, and HTML/CSS for frontend design. The application includes features like user registration, product browsing, and a secure checkout process, and is deployed on Vercel for scalability. It integrates efficient database queries and serverless functions to ensure optimal performance and seamless usability across devices.

- **Siamese Neural Network for ADHD**

Developed a Siamese Neural Network for classifying ADHD and non-ADHD individuals using EEG data, leveraging contrastive loss and triplet loss with convolutional layers for feature extraction and pairwise similarity learning. Evaluated model performance using accuracy and classification metrics.

- **Disaster prediction using Machine learning with privacy and explainability**

Developed a disaster prediction framework using machine learning techniques, incorporating SMOTE for handling imbalanced data, Laplacian noise for differential privacy, and advanced models like Random Forest and XGBoost. Enhanced model interpretability with LIME and SHAP, providing actionable insights for critical decision-making.

EXTRA-CURRICULAR ACTIVITIES AND ACHIEVEMENTS

- Achieved certification for the course completion of HTML and CSS authorized by Meta and offered through Coursera.
- Skilled Carnatic singer, completed Carnatic Vocal Arangetram in 2017
- Accomplished guitarist, achieved Level 5 with distinction in the Trinity College of Music Examination.

DECLARATION

I,Soundaryalakshmi R, do hereby confirm that the information given above is true to the best of my knowledge.

Place: Coimbatore
Date : 05/02/2025   (Soundaryalakshmi R)