Sharath Pai

FULL STACK DEVELOPER & ML ENGINEER

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Degree	Institute	Year	CPI/%
B.Tech (ECE)	D.J. Sanghvi College of Engineering	2020-2024	7.6
HSC	Patkar Varde College	2018-2020	83.23
SSC	Dr. S. Radhakrishnan Vidyalaya	2006-2018	90.80

Summary

An astute learner who is passionate about building websites and analysing data, I am dedicated towards my work and looking forward for collaborations in open source and opportunities that would help me in my growth as well as getting along in a team of skilled individuals.

Professional Experience

Web Development Intern | Suvidha Foundation — Sep 2023 - Oct 2023

- Working on a healthcare website project where people can monitor their health and book a doctor's appointment accordingly.
- **Node MVC Architecture** is used to create and integrate the Frontend and Backend of the website.

Technical Skills

- **Programming:** C, JavaScript, R, Solidity, SQL
- **Development:** Bootstrap, ExpressJS, Handlebars, NodeJS, ReactJS
- **Design:** Figma, Illustrator, Photoshop, Wordpress
- **Tools:** Git, GitHub, MySQL, VSCode

Projects

Development

Science Mission Website | ExpressJS, Handlebars — Ongoing

Science Mission, Dallas, USA — (Expected by Mar '24)

- Creating a freelance website that contains several articles related to science along with the videos as remedy.
- Each article has its own category and the user can filter out the articles based on their choice of category.
- I am creating the **backend** routes using **ExpressJS** and using the **Handlebars** template engine for the **design**.

Blogpage | ExpressJS, Handlebars — Sep 2023

Self Project — Project Link

- Created a blogpage in which showcase my written blogs.
- I am thinking of converting this website to a **dynamic website** in which the user can create and publish their own blogs in which the data can be dynamically passed through a database, preferrably Mongoose.

Swift UnderGrads Website | ReactJS — Jul 2023

Swift UnderGrads — Project Link

- Developed a fully responsive **Frontend** educational website for our community which helps students in getting their desired study material.
- It is a static website and further I am planning to create a portal for various events conducted by the team and a **blockchain** powered **payment gateway** for secure transactions.

Data Science & Machine Learning

Analysis of House Price | R — Apr 2023

Self Project — Project Link

- First, the data from the dataset is **preprocessed** to remove outliers and impute missing variables.
- In the **Regression** model, we determine which variables significantly impact the **house price as a dependent variable** and obtain its mathematical equation.
- In the **Classification** model, we determine whether a house will be sold in 3 months or not. We used **test-train split** and outputted the **confusion matrix** of various algorithms on the test set and found out that the **Linear Discriminant Analysis** gives us the highest accuracy of **66.6%**.
- The dataset used here is **Boston Housing Dataset** which is available on Kaggle.

Analysis of Movies | R Oct 2023

Self Project Project Link

- In this project we use **Decision Trees**, **Ensembling techniques** and **Support Vector Machines** to determine the outcome.
- In the **Regression** model, we predict the box office collection by splitting the dataset into training and test data and find the **MSE** to check the accuracy of each model. Here the **Random Forest Algorithm** provides the least error rate of **41 million**.
- In the **Classification** model, we check whether the movie has received an Oscar or not and. Using the test train split and finding the confusion matrix of each model, the **XG boost** technique provides the highest accuracy of **65%**.
- In the SVM Analysis, we get to know that the relation of Oscar variable is **Linear** with other variables and the **Linear kernel** provides the best accuracy on the test set as **65%** for **Cost=10**.

Publications

Audio Source Separation as applied to Vocals-Accompaniment Separation Mar 2022

DJS Strike ISBN: 978-93-5578-944-0

- The objective of this paper is to present a system for extracting the vocals from any track composed of vocals, instruments and computerized sound effects.
- The training dataset is composed of the tracks for the composite 'mix' and the accompanying vocals.
- The output audio is obtained by **postprocessing** this spectrogram using the inverse short-time **Fourier transform** amongst other techniques.

Key Courses Undertaken

Mathematics and Statistics

- Calculus, Probability and Random Processes, Basics of Statistics, Data Preprocessing for Regression Analysis, Regression Models, Classification Models, Ensemble Techniques, Support Vector Machines, Artificial Neural Networks, Convolutional Neural Networks, Transfer Learning, Time Series

Computer Science

- Structured Programming Approach, Data Structures and Algorithms, Operating Systems, Computer Networks

Positions of Responsibility

Founder & Tech Lead Feb 2022 - Present

Swift UnderGrads

- A community running of telegram, we aim to help **MHT-CET aspirants** by guiding them regarding admission process.
- I lead a **team of 12 members**, all belonging to different areas in Maharashtra. My job is to mentor aspirants and look after the social handles.
- We conduct various **webinars** to help students with their studies and make them clear about the admission process and further career opportunities. Till now we have helped **1000+** students in their journey.
- I also **created a website** which helps students to get their desired study materials.

Head of Public Relations & Social Media Nov 2021 - Apr 2023

DJSCE IETE

Head of Graphics Mar 2022 - Oct 2022

DJS eXpress

Achievements & Certifications

- Runner Up in **DJS Strike** Innovative Project Development 2022 Competition.
- Finalist in Pixel Paranoia **UI/UX** Hackathon.
- Completed 30 Days of **Google Cloud**.
- Certification in 30 Days of **Solidity** Challenge.
- 5 stars in **Hackerrank C**.