# Harshitha Vutukuru Muralikrishna

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### Education\_

### California State University Los Angeles

Los Angeles, CA

M.S. in Computer Science and Engineering

Jan2023-Dec2024

 Courses: Algorithms, Data Science, Artificial Intelligence, Adv. Web Programming, Machine Learning, Operating Systems, Adv. Computer Networks

#### RNS Institute of Technology - VTU

Bangalore, India

B.E. in Information Science and Engineering

Aug2015- June2019

## Work Experience\_

Accenture Bengaluru, India

Application Development Analyst

Sep2019-May2022

- Developed and maintained data-driven end-to-end transactions for Societe Generale, utilizing JavaScript, MySQL, and RESTful APIs for seamless integration.
- Followed Test Driven Development using SQL Developer, SQL Training Sets, and implemented sorted procedures for optimizing database performance.
- Collaborated with front-end developers to integrate user-facing elements with server-side logic using Java, Spring boot, and Jenkins, ensuring efficient deployment pipelines.

Spectrus Informatics

Bengaluru, India

Full Stack Intern

Feb2018-Apr2018

- Developed an interactive UI for an online boutique using Angular2, HTML/CSS, JavaScript enabling seamless browsing, shopping, and order processing features.
- Spearheaded the architecture and development of both frontend and backend, integrating SQL databases, CURD operations and ORM tools for efficient data handling and transaction management.
- Implemented responsive design, RESTful APIs, and JWT-based authentication to ensure smooth user experience, secure communication, and backend integration.

## Projects.

#### Brain tumor detection [Code]

- CerebroVision project leverages Convolutional Neural Networks (CNN) for early detection of brain tumors from MRI images. Implemented ResNet50, VGG19, and custom models (HALNet1, HALNet2, SMVNet, JAPNet) for accurate tumor classification.
- Focused on achieving high **diagnostic accuracy** using **ROC-AUC**, **precision**, and **recall** metrics to evaluate model performance.
- Applied techniques like **image augmentation**, **batch normalization**, and **dropout** to enhance model generalization and reduce overfitting.
- · Aimed to minimize false negatives and positives, improving the reliability and speed of diagnosis in medical imaging.

### Car Price Predictor [Code]

- Developed a **machine learning model** to predict used car prices based on features like make, model, mileage, year, fuel type, and engine size.
- Preprocessed data using techniques like **one-hot encoding** and handled missing values to improve model accuracy.
- Implemented and compared Random Forest Regression and Linear Regression models, tuning hyperparameters using RandomizedSearchCV.
- Evaluated model performance using metrics such as **accuracy** and visualized results with **scatter plots**, **residuals histograms**, and **KDE graphs**.
- Achieved insights into feature importance and used train-test split to validate models, optimizing accuracy for real-world car
  price predictions.

## Skills<sub>-</sub>

Programming Languages Python, HTML/CSS, JavaScript, Java

Machine Learning Frameworks TensorFlow, Scikit-learn, Keras, NLTK

Data Tools/Frameworks SQL, SQLite, Spring, Tomcat, Flask, PyTorch, PySpark, Git, AWS, Hugging Face, Kubernetes