# YASHWANTH SAMUDRALA

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## EDUCATION

**Boston University** - M.S in Artificial Intelligence

- Boston, MA | 2024-2026

**Amrita Vishwa Vidyapeetham** - B.Tech in Artificial Intelligence

- Amritapuri, Kerala | 2020-2024

**Narayana Junior College** - Intermediate(+2), MPC

- Vijayawada, Andhra Pradesh | 2018-2020

**Sri Chaitanya International Olympiad School** - Secondary (10th)

- Vijayawada, Andhra Pradesh | 2017-2018

## ACADEMIC PROJECTS

**Brain Vascular Work: Leveraging AI and CFM for Improved Stroke Management and Outcome Prediction** **2024**

- AI-based image segmentation and flow simulation models for personalized aneurysm management, utilizing 3D U-Net and vascular porous models to predict stroke risk

**Predictive Modeling of Cerebral Arterial Pressure Patterns from MRA Imaging** **2024**

- This project integrates computational fluid dynamics and AI to predict aneurysms by analyzing brain blood vessel pressure, highlighting high-risk areas for early intervention. It emphasizes transparent methods to improve diagnosis and personalized care.

**Speaker Identification Using MFCC Feature Extraction using GMM, CNN, RNN, KNN and Random Forest Classifier** **2023**

- Implemented speaker identification using MFCC features, incorporating CNN, GMM, RNN, and Decision Tree techniques to accurately identify speakers.

**Gold Price Analysis using DQN (Deep Reinforcement Learning)** **2023**

- Developed a system to analyze gold prices using Deep Q-Learning, enabling strategic investment decisions and maximizing cumulative profits over time.

**Image Restoration using CNN** **2022**

- Implemented Convolutional Neural Networks (CNN) in MATLAB for image restoration and successfully restored degraded images by employing advanced deep learning techniques.
- Addressed complex issues such as noise and flaws in the images, resulting in a significant enhancement of overall image quality.

**Live Twitter Hashtag Analysis using Flask and Spark** **2022**

- Executed live Twitter hashtag analysis using Flask and PySpark by taking a developer account, focusing on computer networks. The data is taken and employed with segmentation methods to display the top hashtags, providing personalized choices.

## TECHNICAL SKILLS

**Programming Languages:** Python, Java, HTML, CSS, JavaScript, SQL, Solidity, MATLAB

**Frameworks:** Tensorflow, Flask, Django, PyTorch, Scikit-Learn

**Operating Systems:** Windows, MacOS, Linux

**Tools:** Cisco Packet Tracer, Solidworks

**Databases:** MySQL, MongoDB

**Cloud:** AWS, Google Cloud Services

## PUBLICATIONS

- Examining Amazon Customer Reviews using PySpark and AWS: A Data Lake Approach
- Speaker Identification Using MFCC Feature Extraction : A Comparative Study Using GMM, CNN, RNN, KNN and Random Forest Classifier
- Neuro-Vascular Mapping of Junctions in Human Brain from MRI Scans using Image Segmentation
- Image Captioning: Analyzing CNN-LSTM and Vision-GPT Models

## CERTIFICATIONS AND COURSES

- Python for Data Science Certification - NPTEL & IIT MADRAS
- Introduction to Cybersecurity and Packet Tracer - CISCO
- Introduction to Cloud Computing Course - Coursera
- Fundamentals of Deep Learning Course - NVIDIA
- Advanced Deep Learning with Keras - Datacamp
- The Complete 2020 Fullstack Web Developer Course - Udemy

## COMMUNITY SERVICE

- **Awareness on cybercrimes and cybersecurity**

  Interacted with students at GHS High School, Kulasekharapuram to raise awareness about cybercrimes, cybersecurity and how to navigate and overcome such situations.

- **Reduce Food and Water waste**

  Demonstrated the value of food and water by showing videos, discussing the cons and providing fresh drinking water to the people in Vallikavu, Kerala