# Shriram Vatturkar

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#### EDUCATION

#### Symbiosis Institute of Technology

Aug 2022 - Aug 2026

B. Tech. Artificial Intelligence and Machine Learning

New India School (Higher Secondary Education)

July 2020-March 2022 11th+12th Aggregate: 80%

#### Coursework

Courses: Deep Learning, Machine Learning, Natural Language Processing, Computer Vision, Generative Adversarial Networks, Cloud Computing, Object-Oriented Programming, Data Structures & Algorithms

Awards: Microsoft Copilot Championship  $2^{nd}$  Place

#### SKILLS

Languages: Python, SQL, C/C++, Java

Tools/Frameworks: Pytorch, Tensorflow, ScikitLearn, OpenCv, Nvidia RAPIDS, LangChain, Amazon Web Services,

PowerBI, Linux, RaspberryPI, Arduino, Cisco Packet Tracer

#### Projects

#### Legal Search Engine: RAG and GraphRAG-based Legal Document Retrieval

- Developed a deep learning-powered legal search engine for corporate law using RAG and GraphRAG for precise document retrieval and summarization
- Implemented Neo4j-based knowledge graphs and Pinecone vector search for hybrid retrieval, combining semantic and relationship-based querying
- Built an interactive Gradio-powered UI for intuitive querying and graph visualization of legal document relationships

#### Cognitive Disorder Identification: Identification of several stages of Dementia using Deep Learning

- Developed a model which classifies MRI of brain scans into dementia stages using machine learning as well as deep learning techniques
- Implemented and compared multiple AI models including CNN (VGG11, VGG16), SVM, KNN, Decision Trees, and Random Forests for MRI image classification
- Processed and analysed a dataset of 6400 MRI brain scans, addressing challenges such as class imbalance and subtle image differences between dementia stages

### Stock Watch: Realtime Stock Market Analysis using Machine Learning

- Created a Web Application which analyzes real time sentiment of news headlines related to stock market
- Implemented as a Machine Learning model with Flask, ReactJS, Google API

# Face Shape Analyzer: Find out your Face Shape

- Developed an offline model which inputs facial images and classifies face shape based on different categories
- Implemented Image Processing techniques using OpenCV library and Haar Cascade

#### Competitions

Microsoft Copilot Championship:  $2^{nd}$  Place Winner

Flipkart GRID 5.0

Amazon ML Summer School Competition

Tata Crucible Campus Quiz

PICT Hackathon

## Hobbies

TouchTyping(100wpm), Motorcycling, Video Editing, Swimming, Culinary, Gym