# Arjun Shah

Bajaj Finserv HackRx 4.0 Winner, SIH 2023 Winner and HDFC Securities SDE Intern

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#### Education

## SVKM's Dwarkadas J. Sanghvi College of Engineering

Jan. 2022 – 2025 Expected.

Bachelor of Technology in Computer Engineering

CGPA: 9.26

• Co-Chairperson of Synapse (Machine Learning Committee of College)

## KC JUNIOR COLLEGE(Mumbai)

 $\boldsymbol{2021}$ 

HSC, Maharashtra (98.67 percentile in the MHTCET Entrance Test)

Percentage: 96.17

ST. MARY'S ICSE(Mumbai)

2019

ICSE, India

Percentage: 94.50

# Relevant Coursework

- Data Structures
- Automata Theory
- Computer Networks
- Operating Systems

- Analysis of Algorithms
- Database Management
- Discrete Mathematics
- Digital Electronics

## Experience

## **HDFC** Securities

June, 2023 - August, 2023

SDE Intern(Product Team)

Mumbai, India

- Review Analytics using NLP: Conducted real-time app review analytics using web scraping (Beautiful Soup), Natural Language Toolkit, and BERT (Sentiment Analysis) to identify recurring themes in reviews, aiding in understanding user concerns and bugs. Also, performed competitor analysis for valuable market insights, streamlining decision making.
- Python Automation: Wrote Python scripts to automate tasks, resulting in reduction of turnaround time from 8 hours to 11 minutes. This led to substantial time and cost savings, improving overall efficiency and productivity.
- CSVQueryBot: Employed LangChain and OpenAI API's to facilitate the transformation of user questions into actionable data queries on user-uploaded CSV files.
- Frontend Development: Created frontend pages utilizing ReactJS and Firebase for HDFC Sky, streamlining the customer onboarding journey through refrerrals.

# Research and Projects

## Predicting Solar Energy Generation with Machine Learning based on AQI and Weather Features | Research

- This study utilized time series analysis in combination with machine learning and deep learning models, incorporating weather data and AQI, to accurately predict solar power generation.
- The model had a test R<sup>2</sup> score of 96.91 using an LSTM. Paper awaiting publication.

#### RailwayMitra - Multilingual Railway Assistant | ReactJS, FastAPI, Machine Learning

December,2023

- WhisperX (STT), ElevenLabs-TTS and MBART translator enable swift speech-to-speech translation.
- Gemini-based chatbot handles queries and integrates with maps, employing location detection using IndicNER.
- Implemented IVRS for station authorities, facilitating communication through calls and SMS via Twilio.

#### StockWatch - Stock Suggestion Website | ReactJS, Python, ThreeJS

July,2023

- Created a stock remcommendation app with DeepFace face authentication for a secure signup and login process.
- Features include visually captivating and responsive stock graphs, integration of ML models, and an interactive chatbot.

### Correctify - Text Correction Engine | ReactJS, FastAPI, Machine Learning, ThreeJS

September,2023

• Made a unified platform that uses machine learning models for Multilingual Input, Auto-Completion(BERT) and Auto-Correction (Flan-T5) and OCR creating a versatile toolset capable of addressing a wide array of data entry and data correction scenarios.

#### Technical Skills

Languages: C, Python, JavaScript, Java, HTML, CSS, SQL

Developer Tools: VS Code, Google Colab, Overleaf, Git

Technologies/Frameworks: ReactJS, Three.JS, Streamlit, Sci-Kit Learn, Pytorch, Tensorflow, Tailwind, Bootstrap, NLTK, OpenCV, Numpy, Pandas, Seaborn, Matplotlib, Beautiful Soup

## Achievements

## Smart India Hackathon 2023 Winner

December, 2023

• Secured victory in the largest national level Hackathon (PS 1348), earning a prize of Rs 1 Lakh.

#### Bajaj Finserv HackRx 4.0 Winner

July,2023

• Winner of a national level Hackathon with over 20,000 registrations, earning a prize of Rs 1 Lakh.

#### Lines Of Code - LOC 5.0 First Runner-Up

April,2023

• Runner up in a 1000+ participant Hackathon with a Rs 30,000 prize for developing a secure digital identity application.