YASH RAHUL DESHPANDE

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ACADEMIC DETAILS

COURSE	SPECIALIZATION	INSTITUTE/COLLEGE	BOARD/UNIVERSITY	SCORE	YEAR
CLASS XII	SCIENCE	Vidyadham science Jr. College	Maharashtra State Board of Secondary and Higher Secondary Education (MSBSHSE)	76.31 %	2020
CLASS X		Oxford International School	CBSE	92 %	2018

Subjects / Electives	Python , Probability and Statistics , C and C++
Technical Proficiency	Python , C++, JavaScript , HTML + CSS, MySQL , Node .js, MongoDB , React .js, Express .js

SUMMER INTERNSHIP / WORK EXPERIENCE

Artificial Intelligence Intern , UST Global   **Jul 2023 - Dec 2023**

- Improved User Experience of a client's E-commerce website using Image Captioning and Generative AI.
- Prepared a customized dataset including over **50,000** image text pairs in **JSON format** .
- Collected , cleaned , and formatted the dataset in many iterations by observing model performance critically to make it apt for the use case .
- Fine-tuned **LLM** s **MiniGPT-4** and **Qwen** with a preceding layer of **Grounding Dino** (**Image Recognition**) and **SAM** (**Segmentation**).
- The customized dataset resulted in **improved accuracy** with **97%** accurate results .
- Compared and critically examined the models on the basis of accuracy and response time
- Set up the model on an **AWS EC2** instance with 96GB GPU and tested the results for concurrent users .
- The final result was an accurate model with an average **response time of 1 second .**

PROJECTS

Sociopedia - Web Development (MERN Stack)   **Sep 2023 - Oct 2023**

- View Project on Github
- Developed a responsive **MERN (MongoDB , Express .js, React , Node .js)** social media application from scratch .
- Configured and managed the backend , using **Node .js**, **Middlewares** and **Express .js.**
- Configured the database connection to **MongoDB Atlas** and utilized **Mongoose** for database operations .
- Implemented authentication and authorization mechanisms using **JSON web tokens (JWT)** for user security .
- Designed and structured frontend components using **React** , **Redux** , and Redux Toolkit.
- Created a visually appealing user interface with customizable color themes and **dark mode .**
- Developed essential features , including a navigation bar, registration , and login pages , and user profiles .

Image Caption Generator - Python , Keras , Tensorflow , NumPy, Pandas   **Jul 2023 - Aug 2023**

- View the Project on GitHub .
- Developed an Image caption generator in Python using **Keras** and **TensorFlow** .
- Utilized **Flickr dataset** for realistic and diverse image data and **VGG 16** model for image captioning .
- Implemented dual model architecture with **CNN** for image features and **LSTM** for **NLP** .
- Developed a scalable and versatile solution for generating accurate and contextually relevant image captions

Multi -Page Personal Blog Application - JS, Node and Express , MongoDB , APIs   **Nov 2022 - Nov 2022**

- View the Project on GitHub .
- Implemented the front-end user interface using **HTML , CSS, and Bootstrap** , ensuring a visually appealing and responsive design .
- Created **server -side** logic using **Node .js** and **Express .js**, handling **routing** , **API integration** , and **database operations** .
- Integrated external APIs to provide additional functionalities and enhance user experience .
- Configured the database connection to **MongoDB Atlas** and utilized **Mongoose** for database operations and data modeling .