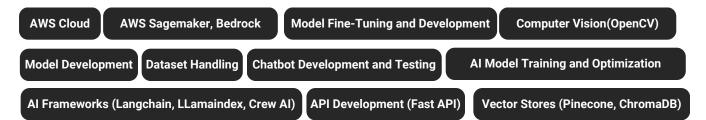# Vedant Rajpurohit

Junior AI Engineer

An individual who possesses a Bachelor of Technology degree in Computer Science Specialized with Machine learning and AI. Completed a hand-full of internships and worked as an teaching profession in IT field. Seeking a career in data science and Generative AI in a challenging environment where I can utilize my technical skills towards the development and implementation of new ideas and contribute to the growth of the organization.

✉ vedantrajpurohit3907@gmail.com 📱 9979508828 ◈ GitHub

📍 Surat, India in Linkedin

SKILLS

`AWS Cloud` `AWS Sagemaker, Bedrock` `Model Fine-Tuning and Development` `Computer Vision(OpenCV)`

`Model Development` `Dataset Handling` `Chatbot Development and Testing` `AI Model Training and Optimization`

`AI Frameworks (Langchain, LLamaindex, Crew AI)` `API Development (Fast API)` `Vector Stores (Pinecone, ChromaDB)`

WORK EXPERIENCE

AI Intern
Dhiwse Pvt Ltd.

Dec 2023 - July 2024   *Surat Gujarat*

- Completed a total of five projects, including three 48-hour hackathons.
- During the hackathons, contributed to two projects as part of a team of three: the Ticketing System and the Recruitment Platform.
- Developed a chatbot using LlamaIndex, Pinecone, and OpenAI for document-based information retrieval. auto-drafting of responses based on previously answered queries using OpenAI and admin interfaces for ticket management and responses for Ticketing System with auto-generating tickets from Mail, Discord, and YouTube.
- Developed GitHub and resume scoring systems with custom criteria and OpenAI models with features for email communication, round creation, and position management for Recruitment Platform.
- Developed an independent project 'LLM Evaluation and Testing Platform'.
- Collaborated on a VS Code extension that auto-generates acceptance criteria and execution plans from various data sources (PDFs, Word files, images, web links, GitHub codebases). Implemented LangChain and LlamaIndex loaders with OpenAI models for efficient results.
- Developed tools for auto-annotation of images in LabelImg and web components, including scraping and annotating web elements.

Computer Vision Intern
IBM SkillBuild Edunet

Sept 2022 - Nov 2022   *Remote*

- Developed the project 'Hand Sign Language Recognition for American Alphabets, Hindi Varnmala, and Numbers' with integrated voice modulation.
- Learned the concepts of Machine learning and deep learning
- Mentor Sessions for project guidence.
- Prepared project presentations and reports

Teaching Intern
P.P. Savani University

Jan 2023 - May 2023   *Dhamdod, Kosamba, Surat Gujarat*

- Taught programming languages like Python, SQL, JavaScript etc. to 1st and 2nd year students of B-tech CS, IT and AIML.
- Provided technical support to classrooms.
- Design lessons that incorporate technologies for students.

ACHIEVEMENTS

Published Research Paper on "Human Computer interacation with detection of hand gesture to improve artistic creativity".
Research Paper Link

Certified Microsoft AZ-900 Fundamentals Proctor Examination.
Google Drive Link

EDUCATION

Bachelors in Computer Science Specialized with AI and ML
P.P. Savani University

Oct 2020 - Apr 2024   *CGPA: - 9.25*

Higher Secondary School (CBSE)
Shree Vasistha Vidhyalaya

Jan 2018 - Apr 2020   *Percentage: - 70*

PERSONAL PROJECTS

LLM Evaluation and Testing Platform
- GitHub: - https://rb.gy/ztxxlk
- Developed a tool for concurrent evaluation of multiple language models with a single prompt and streaming outputs.
- Built evaluation features enabling users to assess prompt responses using custom evaluation metrics and GPT-4-based evaluation, leveraging OpenAI's GPT-4 model for high-quality feedback.
- Enabled individual parameter settings for each model and detailed metrics tracking (tokens used, response time, etc.).
- Implemented a prompt versioning system for saving and managing different versions of prompts.
- Used Supabase for user authentication and data storage.

Virtual Painting Using Hands to create Art
- GitHub: - https://rb.gy/m6mgpt
- Developed a virtual painting application using OpenCV and Python, leveraging camera-based hand tracking.
- Created a custom hand tracking module with MediaPipe and CVZone libraries.
- Implemented an intuitive interface with selectable colors and shapes via hand tracking.
- Enabled freehand drawing and shape drawing with adjustable size options.

Hand sign Language Recognition for American Alphabets, Hindi Varnmala and Numbers" with voice modulation.
- GitHub: - https://rb.gy/dtfl2d
- Created a custom dataset which is available on Kaggle and built custom models using MobileNet with additional layers.
- Designed an interactive dashboard for language selection and hand sign tracking with real-time feedback.
- Implemented voiceover for recognized signs to assist deaf individuals in hearing the hand signs.
- Dataset Available on kaggle: - https://rb.gy/c6vf9c

POS Tagging for Gujarati, Hindi And English Language
- GitHub: - https://rb.gy/88n32s
- Utilized custom libraries like NLTK for English and Hindi.
- Created a dataset for Gujarati available on Kaggle https://rb.gy/c6vf9c , sourced from internet and handwritten texts.
- Implemented a module that auto-detects the language of the input and provides POS tags.
- Enabled support for mixed-language sentences (combining English, Hindi, and Gujarati) with a configurable parameter.
- Designed a rule-based POS tagging system for Gujarati with rules developed with input from educators and experts.

LANGUAGES

English
Full Professional Proficiency

Hindi
Native or Bilingual Proficiency

Gujarati
Native or Bilingual Proficiency

German
Elementary Proficiency