

# Keval Sing Saud

My-Portfolio | LinkedIn | GitHub | Hackerrank

Location: Mumbai, MH, IN  
Email: kevalsaud25@gmail.com | Mobile: (+91)- 9372900190

## MACHINE LEARNING ENGINEER

I possess a profound expertise in the realm of Data Science and Automation Software Development, boasting an extensive track record of 1+ years.

- My proficiency extends to the realm of advanced machine learning techniques. I have delved into the intricacies of Diffusion models and LLM (Latent Linear Models), gaining a comprehensive understanding of their inner workings
- Furthermore, my expertise encompasses the utilization of cutting-edge technologies including HTML, CSS, Python, Pandas, and the intricacies of data science itself. I possess a deep understanding of popular frameworks such as Django and Flask, harnessing their power to create dynamic and feature-rich web applications.

## TECHNICAL SKILLS

<b>Languages</b>	: Python, R, SQL, JavaScript
<b>ML</b>	: Model Training, Diffusion, Prediction and Classification
<b>Data Analysis</b>	: Pandas, NumPy, Matplotlib, Seaborn
<b>Data Visualization</b>	: Tableau, Plotly, ggplot
<b>Frameworks</b>	: Django, Flask, Streamlit,
<b>Libraries</b>	: Requests, Selenium, Pandas, Folium, OCR, matplotlib, bs4
<b>Databases</b>	: MongoDB, MySQL, PostgreSQL
<b>Dev Tools</b>	: Kaggle, Visual Studio Code, Git, Git-lab, PyCharm, Visual Studio, Net beans, Anaconda
<b>CS</b>	: Algorithms, DBMS, Programming, Software Testing, Software Development, ML, Data Structures
<b>Skills</b>	: Problem Solving · Leadership · Data Science · Programming Languages · Matplotlib · SciPy · Databases · Communication · Scrapper · Automation · Data Analysis · Web Scraping · Web Services API · SQL · Data Management · Python (Programming Language)

## EXPERIENCE

### Machine Learning Engineer

SquareYards

June 2022 – Present  
On-site – Mumbai, MH, IN

#### ML and Automation Software Development:

- Integrated **Langchain**, a language modeling tool, with our AI chatbot and Incorporated **Cohere embeddings** to provide contextual understanding for user queries Utilized OpenAI GPT-3.5 model for conversational capabilities.
- Transferred Cohere embeddings to a vector database for efficient storage and retrieval.
- Trained **Stable Diffusion Model** using **LoRA** on proprietary dataset and Achieved desired outcome of enhancing product performance.
- Developed **Automated Web Scraper** and Analysis System using Python frameworks (**Requests, Selenium, Django Web-Framework**). Extracted and structured diverse datasets for data-driven decision-making.
- Developed the automated Web scraper into a web application using Django framework for automation scrapping and database management. Utilized **MongoDB** as the backend database for storing and managing large volumes of scrapped data.
- Achieved 60% improvement in data processing speed , accuracy and Manual work through optimization strategies Because of my Software.
- Proficient in Python, Selenium, Request, SQL, Django, Flask, Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, Tableau, data modeling, statistical analysis, and Git version control.

### Python Developer

PropsAMC By SquareYards

May 2022 - June 2023  
On-site – Mumbai, MH, IN

- Worked on **QGIS** and **ArcGIS** for Geo - referencing and Digitization.
- As a Trainee I have a strong track record of working with large volumes of data through HTTP requests. My worked lies in data manipulation, research, and development of applications tailored for handling substantial amounts of data
- Troubleshoot and fixed bugs and issues in the Software to ensure smooth operation of the applications.

## MAJOR PROJECTS

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### **LLM Chat - bot**

*Langchain, Cohere, Python, Pinecone*

- Integrated Langchain, a language modeling tool, with our AI chatbot.
- Incorporated Cohere embeddings to provide contextual understanding for user queries.
- Utilized OpenAI GPT-3.5 model for conversational capabilities.
- Transferred Cohere embeddings to a vector database for efficient storage and retrieval.
- Implemented a similarity search algorithm on the vector database for query ranking.
- Improved chatbot responses by providing contextually relevant information.
- Gained expertise in vector database management and optimization.
- Enhanced conversational AI and user experience through advanced technologies.

### **Automation Scrapping Software**

*Python, Django, MongoDB*

- Developed a robust and efficient web application using Django framework for automation scrapping and database management. Utilized MongoDB as the backend database for storing and managing large volumes of scrapped data.
- Designed the application following the MVC (Model-View-Controller) architectural pattern for structured code organization and scalability. Created automated scrapping workflows for data collection and management.
- Integrated various web scrapping techniques, including data extraction, parsing, and storage.
- Implemented celery for task scheduling and distributed task execution, improving performance and scalability of the application.
- This project demonstrated my expertise in Django, Django Celery, and MongoDB, showcasing my ability to develop scalable web applications and automate complex tasks..

### **Image Generation Model**

*Python, Diffusers, ML*

- Trained Stable Diffusion Model using LoRA on proprietary dataset
- Objective: Enhance company's product outcomes through improved Image generation
- Evaluated model performance with accuracy
- Generated valuable Desgin for product recommendations and user engagement

## MINOR PROJECTS

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### **Heart Disease Prediction System**

*Python, Flask, MySQL, Apache server, Logistic Regression*

[Source Code](#)

- Developed a web-based Heart Disease Prediction System using Python, Flask, HTML, CSS. Integrated MySQL database for storing user data, medical records, and prediction results.
- Implemented user roles: admin, doctor, and patient with specific functionalities and access levels.
- Created an admin dashboard for user, data, and system management.
- Achieved an impressive 97% accuracy rate in heart disease prediction.
- Demonstrated proficiency in Python, Flask, MySQL, and Apache server.
- Deployed on GitHub Pages via GitHub Actions.

### **Analytical Dashboard**

*Python, Django, Pivot*

[Source Code](#)

- Developed a Python and Django-based data analytics dashboard with interactive visualization capabilities.
- Integrated PivotTable.js library for enhanced data exploration and insights.
- Deployed on GitHub pages via GitHub Actions

### **Name-Entity-Recognition-NLP**

*Python, ML, matplotlib*

[Source Code](#)

- Implemented a Named Entity Recognition (NER) system using BI-LSTM, a powerful deep learning model for text analysis.

- NER is a critical information extraction task that identifies and categorizes named entities (e.g., person names, organizations, locations) in text.
- Deployed on GitHub pages via GitHub Actions

### **Steganography Web App**

*Python, Cryptography*

[Source Code](#)

- Implemented Steganography, a technique to hide secret data within an ordinary file or message to avoid detection.
- Combined steganography with encryption for an extra layer of data protection.
- Steganography allows data to be covertly extracted at its destination.
- Deployed on GitHub pages via GitHub Actions

## **CERTIFICATIONS**

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- [Scientific Computing \[Python\]](#)
- [Data Science 101 \[Python\]](#)

## **TOOLS AND UTILITIES USED**

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- Kaggle, Github, Git
- MS Excel, NetBeans, R Software, Cryptography Tools, SQL server 2008, Vs Code , Unity, Windows 7,8,10 Linux, MS-office, Visual Studio , XAMPP, Web Technologies- HTML, Flask, CSS. Boot strap, Django, Selenium, Requests,OCR etc

## **DECLARATION**

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- I do hereby declare that all statements given by me as above are true, complete correct to the best of my knowledge and belief.