Sahil Panghal

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About Me

Adept Python developer fueled by a desire to push boundaries. I leverage my expertise in crafting innovative solutions with Python and cutting-edge advancements like Generative AI. My proficiency in building robust Django web applications, crafting efficient SQL queries, and implementing Generative AI models allows me to significantly enhance functionality. I thrive in dynamic teams and yearn to leverage my skills to conquer intricate challenges.

Skills

Languages: Python, Django, Al/ML, Generative AI, Conversational AI, HTML, CSS, SQL.

Technologies & Tools: pip, Django, NumPy, Pandas, Scikit-learn, TensorFlow, Matplotlib, Seaborn, Pytest, MySQL, Machine Learning, Artificial Intelligence, Deep Learning, Natural Language Toolkit(NLTK), Google collab, Gemini API, Jupyter notebook.

Work Experience

Campus valley Apr 2024 – May 2024

Python Development Intern

- Developed and maintained backend services and APIs using Django framework, ensuring high performance, scalability, and security standards.
- Collaborated with cross-functional teams to design and implement data processing pipelines, utilizing Python libraries such
 as pandas and NumPy for efficient data manipulation and analysis.
- · Request, NumPy, Pandas, matplotlib, Pytest, Django, Django-crispy-forms.

OctaNet Services Pvt. Ltd.

Apr 2024 - May 2024

Python Development Intern

- Contributed to the optimization of data processing pipelines by implementing Python-based solutions, enhancing efficiency and scalability within OctaNet Services Private Limited company's infrastructure.
- Facilitated knowledge sharing and collaboration among members by curating resources, providing technical support, and guiding individuals in developing voice-enabled applications using Alexa Skills Kit (ASK) and other related technologies.
- Python, NumPy, Django, Pandas, Matplotlib, TensorFlow, Jupyter notebook, git.

Alexa Developer Community CU, Mohali

Oct 2022 - Apr 2024

Lead Executive

- Spearheaded initiatives to organize and host developer workshops, hackathons, and seminars, fostering a vibrant community
 of tech enthusiasts and innovators at the Alexa Developer Community CU.
- Developed a Machine Learning powered solution to predict the likelihood of a production deployment resulting in an emergency reversion.
- Python, Alexa Skills Kit (ASK) SDK, AWS SDK for Python, Virtualenv, Jupyter notebook.

Education

Chandigarh University, Mohali

B.E. in Computer Science and Engineering

Aug 2020 – May 2024 *CGPA:7.86/10*

Relevant Coursework: Object Oriented Programming, Databases, Discrete Maths, Data Structures and Algorithms, Operating Systems, Computer Networks, Machine Learning, Data Mining, Advance Data Structures and Algorithms, Information Retrieval, Image Processing

Project Work

- Student study portal (2024): Student Study Portal transcends the limitations of traditional textbooks, emerging as a Python
 Django-powered web application designed to empower students and expedite their academic odyssey. This meticulously
 crafted platform functions as a singular nexus for all study-related needs, fostering a well-organized and efficient learning
 environment.
 - Leveraging the robust architecture of Django, the portal presents a user-centric interface, enabling students to effortlessly manage tasks, access a plethora of resources, and collaborate seamlessly. Features encompassing note-taking

functionalities, meticulous to-do list management, and the integration of scholarly resources (e.g., online dictionaries, educational video archives) cultivate a focused and structured approach to learning.

Furthermore, the portal fosters a collaborative spirit by potentially incorporating features like interactive discussion forums or collaborative study group functionalities. This fosters a dynamic environment for peer-to-peer learning, allowing students to glean valuable insights from shared knowledge and experiences. By consolidating resources and nurturing a collaborative atmosphere, Student Study Portal empowers students to take the reins of their academic success.

Libraries Used: Django, django-crispy-forms, urllib3, youtube-search-python, Wikipedia.

GitHub Repository Link: github.com/sahilpanghal/studentstudyportal.git

Forecasting Financial Market through Machine Learning (2024): This project, "Forecasting Financial Markets through Machine Learning," ventures into the labyrinthine world of financial forecasting with the aid of Python. By wielding the potent tools of machine learning algorithms, it excavates hidden patterns buried within historical market data. Through meticulous analysis of vast datasets, the project aspires to construct dependable models that can illuminate future market trends. Leveraging the robust foundation of Python libraries, the project empowers users to delve into a diverse arsenal of machine learning techniques, encompassing time series analysis and intricate deep learning models. This fosters a data-driven approach to financial forecasting, potentially enabling users to make informed investment decisions. However, the project acknowledges the inherent complexities that shroud the financial markets and emphasizes the crucial role of user expertise in interpreting the generated forecasts.

Libraries Used: yfinance, pandas, sklearn, numpy.

GitHub Repository Link: github.com/sahilpanghal/Forcasting-Financial-Market-through-Machine-Learning-.git

• Core Encrypter (2022): It transcends the realm of traditional image manipulation. This Python project harnesses the power of steganography, a clandestine art of concealing confidential data within seemingly ordinary image files. By leveraging Python's robust libraries like Pillow and tkinter, Core Encrypter seamlessly embeds messages within the digital essence of images, rendering them indistinguishable to the untrained eye. This empowers users to achieve a paramount level of data security without jeopardizing file integrity. Core Encrypter strikes a harmonious balance between user-friendliness and robust protection through its intuitive interface and integration of cutting-edge encryption techniques.

Libraries Used: PIL(Pillow), tkinter, Operating System

GitHub Repository Link: github.com/sahilpanghal/Core-Encrypter.git

Certificates

•	Introduction to generating AI, Google See Credential	May 2020
•	Introduction to Large Language Models, Google See Credential	May 2020
•	Introduction to Responsible AI, Google See Credential	May 2020
•	Prompt Design in Vertex AI, Google See Credential	May 2024
•	TensorFlow: Advanced Techniques Specialization, Coursera See credential	Feb 2024
•	Computer vision, Coursera See credential	Aug 2023
•	Introduction to Cybersecurity Tools and cyberattacks, Coursera See credential	Sep 2022
•	Machine Learning, Coursera See credential	Mar 2022
•	Python Basics, Coursera See credential	Oct 2020