Shaleen Malik

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EDUCATION

Indian Institute of Technology, Bhilai
BTech in Data Science and Artificial Intelligence; **CGPA: 8.71**   *2020 − 2024(Expected)*

Delhi Public School, Vasant Kunj
Higher Secondary, CBSE Board; **Percentage: 93.8%**   *2017 − 2019*

WORK EXPERIENCE

Unistring Tech Solutions   Hyderabad
Embedded Software Intern (AI Research and Development) [OpenAI, PyQt, Python]   *May 2023 − July 2023*
- Developed an application with OpenAI API and PyQt to convert SysML flow diagrams into functional code.
- Designed notations for Qt front-end developers to facilitate application code generation and parameter handling.
- Testing revealed up to 65% reduction in development time in 8 out of 10 cases.

National Informatics Centre   Chhattisgarh
ML Intern [Python, Statsmodels, Sklearn, Plotly, Dash]   *May 2022 − Jul 2022*
- Worked with Chattisgarh's paddy procurement data of over 7 years to draw district specific conclusions.
- Analyzed trends and detected anomalies in the data by using time series and clustering concepts.
- Developed an interactive dashboard using Plotly and Dash for automated analysis and report generation.

IIT Bhilai Innovation and Technology Foundation   Chhattisgarh
Research Fellowship [Pyhton, Neo4j, Plotly, Dash]   *Feb 2022 − Aug 2022*
- Problem researched: Detecting Money Laundering via Graph Neural Networks
- Analyzed Bitcoin network graphs using Neo4j and built an interactive Dashboard to track node behavior.
- Explored Graph Convolutional Networks and implemented various graph algorithms like Parallel BFS and Dijkstra to gain deeper insights into the huge network's characteristics.

PROJECTS

Response Generation for Pandemic-Related Queries | *Github*
- Referred the problem and dataset released by NIH to generate query responses and suggest follow-up questions.
- Employed BM25 and BERT models to rank sentences and generate meaningful answers in 14 out of 15 cases.

Medical Diagnosis Application | *Github*
- Gathered and parsed data from thesaurus.com with BeautifulSoup to create suitable dataset.
- Trained a Decision Tree classifier on this dataset for predicting diseases from user-provided symptoms.
- Crafted a PyWebIO app to offer disease diagnosis along with descriptions and potential remedies.

Serpent Encryption for Confidential Records | *Github*
- Conducted an in-depth analysis and created python implementation of the Serpent cipher and its cryptanalysis.
- Utilized Flask, Python, HTML, and CSS to develop an application that selectively encrypts requested columns in datasets for protection of sensitive data.

SIH 2022 project on Entity Resolution (Winner among 3 lakh+ participants) | *Github*
- Title: Estimating % level of matching between entities to consolidate data from multiple govt. programs.
- I majorly worked on curating a dataset and implementing phonetic matching.

SKILLS

Languages: Python, SQL, HTML, CSS
Tools and Frameworks: Git, Github, MySQL, Neo4j, Spark, OpenAI API, HuggingFace, PyTorch, WSL, Cppcheck, Qt, PyWebIO, Flask, Observable(D3), Selenium Web Driver, Sage, OpenCV, Latex
Relevant Coursework: Information Retrieval, Natural Language Processing, ML, AI, Data Analysis and Visualisation, Digital Image Processing, Cryptography, Data Structures and Algorithms

PORs

Member: Developer Student Club (Google Developer Initiative), Student Placement Team, IIT Bhilai
Coordinator: Renaissance (Arts Club, IIT Bhilai), Co-headed Decor Team, Meraz'22 (Annual Techno-Cultural Fest)
Executive: Student Alumni Cell (2022-23), Student Mentorship Program (2020-22)