Manish Vishwakarma

Undergraduate Student
Department of Information Technology

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ACADEMIC QUALIFICATIONS

Year	Degree/Certificate	Institute	CPI/%
2021 - 2025	B.Tech - IT	Guru Ghasidas Vishwavidyalaya, Bilaspur	70.8%
2018 - 2020	Class XII (BSEB)	Gram Bharti College, Ramgarh	76.0%

WORK EXPERIENCE

Data Analytics Intern | **Vagus Hospital, Bilaspur** | *(Sep'24-Dec'24)*

Objective	• Automated the extraction of 2–5 years of healthcare data from a website that allowed 3-month downloads at a time.
Approach	• Use **Requests&BeautifulSoup** for static content scraping, and **Selenium** for dynamic content (JavaScript-loaded). • Set the **Chromedriver** path and initialize the **Service** object to manage Chrome browsers with **Selenium**. • After storing the data in the database, manual analysis in MS Excel was time-consuming and repetitive. • **Tools:** data analysis with Python libraries (Pandas, Numpy, Matplotlib, Seaborn, and Bokeh) for efficient insights.
Outcome	• Enabled seamless extraction of **multi-year** data, reducing manual effort and improving **efficiency**. • **Automated** data analysis improved efficiency, **saved** time, and provided consistent insights **effortlessly**.

Chatbot Developer (SIH23) | **PUNJAB GHAR GHAR ROZGAR** | *(Nov'23-Dec'23)*

Objective	• Developed a GPT-3.5 chatbot to enhance the platform-usability, making it more interactive for job seekers.
Initiative	• Enhance PGRKAM by developing an AI-powered chatbot to improve the engagement of seekers and employers. • enhancing user engagement and streamlining access to employment services for job seekers and empoyment. • This enhancement provides personalized assistance, making the platform more intuitive and efficient.
Outcome	• Improved user experience with **real-time** responses, natural language accessibility,& **effiecient** resource navigation.

KEY PROJECTS

Smart - Harvest | *Course Project-III* | **Mentor:** Prof. Ankit kumar | *(Dec'24 - Apr'25)*

- Developed a machine learning model for crop and fertilizer recommendation by analyzing soil nutrients (NPK), temperature, humidity, and rainfall data across various regions, enhancing agricultural productivity.
- Integrated real-time temperature and weather data to provide accurate regional suggestions, optimizing crop yield, and resource.
- Implemented a crop disease detection system using Groq AI for image-based analysis, identifying common plant diseases, and recommending suitable preventive measures.

Career Pathways Prediction Using ECG and EEG | *Course project-II* | **Mentor:** Prof. Ankit kumar | *(Aug'24 - Nov'24)*

- Analyze brainwave and heart rate data using ECG and EEG sensors to predict career interests and pathways.
- Applied machine learning models, achieving an accuracy of 85% in mapping physiological signals to career preferences.
- Tools and Technologies: Python, Jupyter notebook, vscode and logistic regression, random forest machine learning algorithms.
- Personalized **career recommendation** based on unique brain waves and emotional profiles.

Wafer Fault Detection System | *Course Project-I* | **Mentor:** Prof. Ankit Kumar | *(Dec'23 - Apr'24)*

- Developed a **machine learning model** to identify **faults** in **semiconductor wafers**, ensuring quality and minimizing defects.
- preprocessed data to address missing values, outliers, and imbalances while engineering features to enhance model performance.
- Tools and Technologies: Python, Scikit-learn, Pandas, Matplotlib, Vs Code, Jupyter Notebook for analysis and visualization
- Achieved **high fault** detection accuracy, **reducing** false positives. Enhanced manufacturing efficiency by identifying defects early.
- Achieved **94%+** accuracy using **Random Forest**, **XGBoost**, and **Decision Tree**, optimized with **GridSearchCV** and **K-Fold**

TECHNICAL SKILLS

- **Programming Languages:** C++, Python, R, SQL
- **Software and Utilities:** Vs Code, Git, GitHub, HTML, CSS, LaTeX, Excel, MySQL, Power BI, Tableau, MongoDB
- **Libraries & Frameworks:** NumPy, Pandas, Matplotlib, Scikit-learn, Seaborn, Streamlit, flask
- **Data Sceince:** ML and DL, NLP, Big Data(Hadoop, Spark, and Apache Flink), Docker
- **Cloud:** Heroku, AWS, GCP

RELEVANT COURSES

†(online) *(ongoing)

Generative AI: OpenAI, Gemini	Introduction to Machine Learning	Introduction to Artificial Intelligence
Probability and statistics	Linear Algebra and ODE	calculus optimizations
Introduction to DBMS	Introduction to cloud	Data Structures and Algorithms†

EXTRA-CURRICULAR ACTIVITIES

Technical	• Achieved **1st** rank in final round of Smart India Hackthon 2023 among **500+** teams from Engineering Colleges.
Credential	• completed a 25-hour training program on "Ethical Hacking and Penetration Testing" conducted by C-DAC, NOIDA under the Cyber Gyan Project, supported by the MEIT, Government of India. • Completed 6-months+ of Data Science training, equivalent to a 6-months internship experience From pwskills.
Volunteer	• SIH2K24 Lead **10+ volunteers**, managed logistics, coordinated teams, assisted participants, and ensured smooth execution.