



Vikas Kumar Sharma



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EDUCATION

Year	Degree/Exam	Institute	CGPA/Marks
2024	M.TECH	Indian Institute of Technology Kharagpur	9.58 / 10
2019	B.TECH	National Institute of Technology Agartala	8.83 / 10
2014	Intermediate Examination	Bihar School Examination Board	67.4%
2011	Secondary School Examination	Bihar School Examination Board	65%

SKILLS

Technical Skills: Python, Machine Learning, Deep Learning, NLP, MySQL, Git, Docker, AWS, Microsoft Excel, Tableau, PowerBI
Python Libraries: Numpy, Pandas, Seaborn, Matplotlib, Flask, TensorFlow, Scikit-Learn, Pytorch, NLTK, Langchain
Soft Skills: Communication, Problem Solving, Analytical Thinking **IDEs:** Jupyter Notebook, Visual Studio Code, Pycharm

PROJECTS

LLM-Powered Streamlit-Hosted PDF Query Processor Oct'23-Dec'23

- Developed an advanced PDF Query Processor using Python, Integrated LLM to elevate query resolution capabilities
- Optimized document vector storage and retrieval using FAISS, used preprocessing and embedding from Langchain
- Deployed the application on Streamlit Cloud, a user-friendly interface accessible at: <https://vikas-iitkgp.streamlit.app/>

Hand-sign Detection using Deep Learning Jul'23-Aug'23

- Developed a real-time gesture recognition model with custom dataset and manual data annotation using YOLOv5
- Achieved 0.995 mAP50 score and 0.922 mAP50-95 score, showcasing the model's accuracy in detecting gestures

NLP Based Fake News Classifier Aug'23-Sep'23

- Applied text pre-processing using NLTK and used TF-IDF, Bag of Words for vectorization on "US Elections Dataset"
- Trained Multinomial Naive Bayes, Passive Aggressive Classifier and obtained accuracy of 92% PAC
- Build the LSTM model with the accuracy of 58% using One Hot Encoding (OHE) for the pre-processing of text

APS Fault Detection using Machine Learning Apr'23-Jun'23

- Conducted thorough Exploratory Data Analysis on an extensive dataset comprising 36,188 entries and 171 features
- Addressed class imbalance through SMOTE-Tomek Links, employed Robust Scaler for scaling and PCA for feature reduction
- Utilized classifiers such as Logistic Regression, Random Forest, Adaboost, achieved PR AUC of 99.6% by XGBoost

HR Analytics: Job Roles and Availability Dec'22-Jan'23

- Conducted in-depth analysis and performed extract, transform and load (ETL) operations to discover useful HR insights
- Created a interactive PowerBI dashboard, incorporating slicers, buttons, and bookmarks enabling data-driven decisions

INTERNSHIP

Summer Intern / OD Optimisation- ITS Planners and Engineers Private Limited May'23 — Jul'23

- Pioneered ground-up implementation, harnessing the pyswarm algorithm to enhance origin-destination estimates
- Embarked on mastering optimization, Git, Docker, and Poetry, built a strong foundation for innovative development

TECHNICAL EXPERIENCE

Senior Planning Engineer / Mohanpura MVRWSS- Larsen and Toubro Limited Jul'19-Jan'22

- Contributed to a Rs 248 cr project, utilizing Python, SQL, Excel, and Tableau for data analysis, reporting and visualization
- Implemented risk assessment strategies through data analysis, mitigating engineering risks and ensuring project success
- Developed automated reporting systems in Excel, improving cost-efficiency and providing insights to stakeholders
- Utilized PowerBI for visualizing project progress, fostering transparent communication with clients and stakeholders

POSITIONS OF RESPONSIBILITY

Team Leader, KPIT Sparkle 2023 at IIT-KGP Sep'22-Apr'23

- Led a dynamic trio in an innovation-centric "KPIT Sparkle 2023", fueling transformative ideas with resolute leadership

Senior Planning Engineer, Larsen and Toubro Limited Jun'20-Jan'22

- Oversaw project planning budgeting anlysis, risk management, resource optimization and regulatory compliances

Head of the Suspension designing team for Vegvahini 2.0 at NIT Agartala Mar'17-Jan'18

- Headed 5-member team, oversaw the designing and manufacturing of suspension system in BAJA SAEINDIA 2018

ACHIEVEMENTS AND HONOURS

- Secured a distinguished elite position among the top 10 frontrunners from 1021 teams in "KPIT Sparkle 2023"
- Designed and built an ATV "Vegvahini 2.0" with a team of 25 members and participated BAJA SAEINDIA 2018