

AKSHAT PATIL

Nashik, Maharashtra

☎ +91-8626005506

✉ akshatvvpatil2003@gmail.com

🌐 [Linkedin](#)

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OBJECTIVE

Passionate about AI and Data Science, focused on executing projects, applying machine learning and data analysis skills, and collaborating with teams to solve problems and deliver impactful results.

SKILLS

- **Languages & Technologies:** Python, Flask, SQL, Tableau, Power BI, Advanced Excel, Pivot Tables, VLOOKUP, Conditional Formatting, Macros.
- **Database Management Systems (DBMS):** SQL Server, MySQL, MySQL Workbench, SQL Server Management Studio.
- **Data Science:** Statistical Data Analysis, Regression Analysis, Machine Learning, Deep Learning, Data Visualization, Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, TensorFlow, PyTorch.
- **Soft Skills:** Teamwork, Collaboration, Time Management, Decision Making.

INTERNSHIPS

Infosys Springboard

Oct 2023 - Present

Role - Artificial Intelligence Intern

Remote

- Engaging in AI and NLP-focused Text Summarization System project, applying hands-on techniques under mentor supervision.
- Collaborating with team members to develop AI solutions, accelerating project execution by approximately 15% and presenting insights to project stakeholders.

TDK PRIVATE LIMITED

Dec 2023 - Jan 2024

Role - Intern

Nashik, Maharashtra

- Spearheaded the analysis of industrial processes and operations, collaborated with cross-functional teams on multiple projects and demonstrated adaptability in a real-world industrial environment.
- Presented key insights to senior stakeholders, integrating PLC programming with data analytics, enhancing system efficiency and reducing downtime by 30%.
- Executed SQL-based data extraction and analysis within the EMS, developing a Tableau dashboard to track 4 key metrics and enhance data visibility across daily, weekly, monthly, and yearly trends.

Academor

Aug 2023 - Sept 2023

Role - Data Science Intern

Remote

- Acquired hands-on experience with Python, key libraries (Pandas, NumPy, Matplotlib, Scikit-learn) and machine learning.
- Executed a minor data analysis project (Student Planner system) independently, improving task completion efficiency by 50% and demonstrating problem-solving skills.
- Collaborated with a team on the Big Mart Sales Prediction project, presenting actionable insights to stakeholders, resulting in a 10-15% increase in sales and receiving expert evaluation.

PROJECTS

Image Captioning System [↗](#)

Flask, NLP, PyTorch

- Built an image captioning system using the BLIP model for generating descriptive captions from images, integrated with Flask for a web interface.
- Utilized PyTorch and Hugging Face Transformers for model inference, enhancing caption quality and processing speed by 40%.
- Employed PIL for image processing and Base64 encoding for seamless image uploads, improving upload time by 20-30% and optimizing user experience.

PLC Programming and Real-Time Sensor Integration with Machine Learning [↗](#)

Python, Snap7, Siemens S7-1500 PLC

- Successfully established seamless communication between Siemens S7-1500 PLC and external systems using Python and Snap7, automating industrial processes.
- Engineered robust communication protocols, ensuring smooth integration between the PLC and external devices (PCs), reducing downtime by 30%.

Real-Time Integration of Air Pressure Sensor with PLC & Machine Learning

Python, Machine Learning, SQL Server

- Collaborated with a team to integrate air pressure sensor data with Siemens S7-1500 PLC and utilized SQL Server to store and manage real-time air pressure sensor readings, enabling efficient data retrieval and analysis.
- Applied a variety of machine learning algorithms and techniques to develop and deploy models, achieving 80% accuracy in predicting real-time air pressure variations and optimizing system responsiveness.

Big Mart Sales Prediction

Python, Pandas, Numpy, Matplotlib, Seaborn, Scikit-learn, Tableau

- Built a predictive model, applying various algorithms with Random Forest and LightGBM performing the best due to their superior performance and efficiency, achieving a high train R2 score of 0.9177.
- Selected LightGBM for deployment, achieving a test R2 score of 0.4056, optimizing inventory management and enhancing predictive performance.
- Created a Tableau dashboard to visualize sales data trends and model predictions, enabling actionable insights for inventory optimization.

EDUCATION

K. K. Wagh Institute of Engineering and Education Research, Nashik

BE - Artificial Intelligence and Data Science - CGPA - 7.73

2021 – present

Nashik, Maharashtra