

# DIYA K BHAT

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## SUMMARY

Highly motivated AI & ML engineer with strong expertise in Python, SQL, and Data Science. Experienced in computer vision, predictive modeling, and cloud platforms, with practical exposure to building and deploying scalable solutions. Passionate about creating impactful projects that drive real-world change.

## EDUCATION

<b>BE - Artificial Intelligence &amp; Machine Learning</b> JIT Visvesvaraya Technological University	<b>83%</b>	<b>2026*</b>
<b>Credit linked program in Data Science</b> Daksh Gurukul - IIT Guwahati		<b>2025*</b>
<b>PUC</b> Surana Independent College, Deeksha – Kengeri	<b>82%</b>	<b>2022</b>
<b>10<sup>th</sup> ICSE</b> Presidency School, Nandini Layout	<b>90%</b>	<b>2020</b>

## TECHNICAL SKILLS

- Programming languages: Python, C, JAVA, C++, R
- Open AI API's
- Cloud Computing: AWS, Google Cloud
- Collaboration and Problem-Solving: Remote teamwork, Agile methodologies
- Data Visualization: Tableau and Power BI
- Database: SQL, MySQL, MongoDB

## PROFESSIONAL EXPERIENCE

<b>Freelance AI Contributor – Outlier.ai</b>	<b>Nov '24 – Jan '25</b>
<ul style="list-style-type: none"><li>• <b>Elevated</b> AI model accuracy by 20% through rigorous testing, evaluation, and refinement of model outputs across summarization, translation, and diverse content types.</li><li>• <b>Enhanced</b> reasoning capabilities in domains such as economics, medicine, law, and psychology by supporting RLHF workflows and developing human-aligned AI models.</li><li>• <b>Streamlined</b> data training pipelines by curating structured multilingual and multi-domain datasets, improving scalability, usability, and reliability of AI systems.</li></ul>	

## PROJECTS

<b>AI-Driven Traffic Congestion Management: Dynamic Signal Coordination, Adaptive Transmission and Real-Time Adjustments</b>	<b>March '25*</b>
<ul style="list-style-type: none"><li>• <b>Developed an AI-driven traffic management system</b> with dynamic flow optimization and real-time Emergency Vehicle Priority (EVP) for congestion reduction.</li><li>• <b>Fine-tuned a YOLOv8 model on a 4,000+ image dataset</b>, achieving <b>97.1% mAP50</b> for accurate vehicle detection in real-world traffic.</li><li>• <b>Deployed real-time inference on live CCTV streams</b>, enabling low-latency vehicle recognition and emergency response automation.</li></ul>	
<b>A Cost-Based Restaurant Clustering and Location-Based Recommendation System</b>	<b>Mar '25 – Apr '25</b>
<ul style="list-style-type: none"><li>• Developed a machine learning model using <b>K-Means Clustering</b> to group restaurants based on pricing and features, achieving a Silhouette Score of 0.6 for cluster quality. Used <b>Python, FAST API for backend and HTML, CSS for frontend</b>.</li><li>• Integrated Google Maps API to offer dynamic, location-based restaurant recommendations. Enhanced user decision making by recommending cost-effective dining options nearby.</li><li>• Project findings published in <b>JETIR</b> (UGC Care - approved Journal) – <a href="#">link</a></li></ul>	

- Built a full-stack web application to detect fraudulent job postings using ML.
- Trained a Logistic Regression model with TF-IDF vectorization, achieving an F1-score of 0.84 with high precision.
- Designed a React + TypeScript + Tailwind CSS frontend with real-time predictions, confidence scoring, and keyword highlighting.
- Implemented a Flask (Python) backend with REST APIs and deployed the system via Netlify (frontend) and Render (backend).

## AI for Pandemic Prediction

Sept '24 – Dec '24

- Built a **linear regression** model to predict pandemic potential using global COVID-19 data.
- Engineered an impact metric combining 4 key health indicators to quantify outbreak severity across 150+ countries.
- Developed a **Streamlit** dashboard enabling real-time prediction and visualization of pandemic risk from uploaded datasets.

## CERTIFICATIONS

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- Introduction to Generative AI Learning Path - Google Cloud Skills Boost
- Career Essentials in Generative AI by Microsoft and LinkedIn
- Gemini in Google Workspace (including Gmail, Docs, Meet, Sheets and Slides)
- AWS Academy Graduate - AWS Academy Machine Learning Foundations
- Data Visualization: Empowering Business with Effective Insights simulation by Tata on Forage
- Data Science with Python by Simplilearn
- AWS Academy Graduate - AWS Academy Cloud Foundations
- Google Cloud Computing Foundations Certificate
- Introduction to Generative AI Learning Path - Google Cloud Skills Boost
- Dream Builder Program by Thunderbird School of Global Management, Arizona State University, AROH Foundation, FIS Global and Freeport-McMoRan

## PUBLICATIONS AND PRESENTATIONS

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- **Journal Publication:** Frugal Foodie: A Cost-Based Restaurant Clustering and Location-Based Recommendation System; Journal of Emerging Technologies and Innovative Research (JETIR), Vol. 12, Issue 5, May 2025.
- **Conference Presentation:** Presented at the 11th National Conference on Advancements in Information Technology (NCAIT), JSSATE, Bengaluru, May 2025.

## CLUB AND EXTRACURRICULAR ACTIVITIES

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- **Assistant Editor, JITIMES** - College Magazine, contributed valuable insights and actively participated in the editing process, enhancing the quality of the magazine
- **Student Placement Coordinator** - Managed campus placement drives by coordinating with recruiters and students, ensuring smooth execution while fostering teamwork, communication, and leadership skills.
- **LinkedIn profile manager** for a community named Girls Leading Tech
- Campus Ambassador for GirlScript Summer of Code 2025 (GSSoC 2025)
- **Social Media lead** for “HackAura” – global virtual hackathon held by Girls Leading Tech
- **Documentation lead** of AI Nexus club – JIT
- **Python Workshop Instructor:** Conducted a Python workshop for juniors, mentoring them on foundational programming concepts and best practices.
- **Master of Ceremonies:** Served as the Master of Ceremonies (MC) for Pranathi, our college's annual techno-cultural fest, showcasing strong public speaking and event-hosting skills.