

# Vinay Borkar

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## PROFESSIONAL SUMMARY

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Junior Software Engineer with 2.5+ years of experience in statistical analysis, machine learning, data engineering, and BI reporting. Skilled in Python, SQL, Power BI, and Azure with strong expertise in data cleaning, visualization, predictive modeling, and ETL automation. Proven ability to turn complex datasets into actionable insights and deploy scalable analytics and AI solutions that improve efficiency and business decision-making.

## EDUCATION

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<b>Masters in Technology</b> (Mechatronics) IESTS	2020 - 2022 Grade: 8.64/10.0
<b>Bachelor of Technology</b> (Mechanical Engineering) DIT University	2014 - 2018 Grade: 7.72/10.0

## EXPERIENCE

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**Junior Software Engineer** June 2023 - Present  
Cognizant *Pune*

- Built and deployed scalable cloud-based AI applications using Python, React.js, and Azure (Functions, Blob, Cosmos DB).
- Integrated LLMs with Azure microservices to enable generative AI solutions and intelligent assistants (LangChain, prompt engineering).
- Optimized ETL pipelines and data workflows, reducing transfer time by 25% and boosting accessibility.
- Developed Power BI dashboards for real-time KPI tracking and performance monitoring.
- Automated document data extraction for 2,200+ users, cutting manual effort by 95%.
- Refactored Python scripts and fixed critical defects, improving data accuracy and reducing issues by 15-20/month.
- Enhanced SQL/PLSQL queries for BI reporting, improving performance by 20%.
- Led cross-team collaboration and Agile delivery, accelerating issue resolution and ensuring high-quality releases.
- Earned 4 Generative AI certifications, increasing development efficiency by 15%.

## PROJECTS

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**Data-Visualization-of-Bird-Strikes-between-2000-2011** ( [Github](#) ) April 2024

- Conducted an end-to-end analysis of FAA bird-strike data (2000-2011) to identify risk patterns affecting aviation safety.
- Performed data cleaning, profiling, and visualization using Pandas, Matplotlib, Seaborn, and Plotly.
- Analyzed strike frequency by season, airport, aircraft phase, and species to determine key risk factors.
- Produced interactive dashboards highlighting high-risk locations and operational conditions.
- Delivered insights to support data-driven wildlife-management and aviation-safety strategies.

**Wood logs Inventory Optimization** ( [Github](#) ) March 2024

- Problem: Manual identification and management of wood stacks led to inefficiencies and increased operational costs.
- Solution: Designed and deployed a computer vision system using YOLOv8 for object detection combined with DeepSORT for object tracking.
- Outcome: Achieved 90-96% detection accuracy, reduced manual labor by 30%, and delivered savings of over \$1M.
- Tech Stack: Python, YOLOv8, DeepSORT, Roboflow, Google Colab, Flask

**Feathered Guardian- A Smart Poultry Litter Tracking and Alert System** ( [Github](#) ) February 2024

- Problem: Poor litter management caused high ammonia accumulation and increased risk of pathogens in poultry farms.
- Approach: Collected and annotated custom datasets, trained a YOLOv8 model for object detection, and deployed a real-time tracking dashboard using Streamlit.
- Impact: Delivered 90-96% precision, reduced manual intervention by 10%, and generated cost savings exceeding \$1M.
- Tech Stack: Python, YOLOv8, Roboflow, Streamlit, Google Colab.

## CERTIFICATIONS

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### Data Science Certification 360DigiTMG ( [Link](#) )

August 2024

- Earned certification with a 'B' grade (76%) in Data Science.

### Poultry Litter Tracking and Alert System Innodatatics ( [Link](#) )

March 2024

- Completed an project focused on developing a smart Object detection and tracking system for real-time poultry litter monitoring and alert generation.

### Data Science using Python & R Programming 360DigiTMG ( [Link](#) )

December 2023

- Gained hands-on experience in data analysis, ML, and visualization using Python. Covered topics including statistical modeling, data preprocessing, supervised and unsupervised learning, and predictive analytics.

### Data Visualisation using Power BI 360DigiTMG ( [Link](#) )

November 2023

- Acquired skills in creating interactive dashboards and reports using Power BI. Learned data transformation, DAX functions, and visualization best practices for effective business intelligence and decision-making.

## SKILLS

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**AI / ML:** Machine Learning, LangChain, GenAI, LangGraph, Hugging Face, LangSmith, TensorFlow, LLM, Generative AI

**APIs & Testing:** Agile Methodologies, API

**Cloud & DevOps:** Virtualization, Windows, Git and Github, Docker, Google Cloud Platform, AWS

**Computer Languages:** HTML, CSS, Python, SQL, Python

**Databases & Data Tools:** Spreadsheet, NoSQL, Power BI, Excel, MySQL, Excel, Power BI

**Domain & Business Skills:** Analytics, ServiceNow

**Frameworks & Libraries:** Pandas, Matplotlib, Microsoft Office, OpenCV, NumPy

**Soft Skills:** Public speaking, Verbal/nonverbal communication, Written communication, Team Building, Time management, Decision-making, Creativity, Teamwork, Critical Thinking, Responsibility, People skills, Problem-Solving, Presentation Skills, Communication Skills

## EXTRA-CURRICULAR ACTIVITIES

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- **Team Lead**, “Feathered Guardian – Smart Poultry Litter Tracking System” project, mentored a 4-member team and delivered a 90% accurate AI-based detection model.
- **Research Contributor**, *Wood Logs Inventory Optimization* — published in *IJISRT (Vol. 9, Issue 7, July 2024)*.
- **Workshop Participant**, 360DigiTMG Data Science Bootcamp — completed projects in Python, Power BI, and Generative AI.
- **Active Contributor**, internal AI innovation group at Cognizant, developing automation tools using LLMs and Azure Functions.
- **Organized** department-level tech sessions on Machine Learning and Cloud Deployment best practices during postgraduation.