

Vikas Ravikumar Karjigi

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SUMMARY

Data Scientist and AI/ML Engineer with 3+ years of experience delivering ML-driven solutions and real-time data systems. Skilled in Python, SQL, TensorFlow, and cloud tools, with a proven ability to transform complex data into insights and deploy scalable ML models.

EDUCATION

Illinois Institute of Technology, Chicago, IL Master of Applied Science in Data Science Core Courses: Big Data Technologies, Data Preparation and Analysis, Regression, Machine Learning, Introduction to Time Series, Monte Carlo Methods in Finance, Project Management	Aug 2024 – Present GPA: 4.0/4.0
RV College of Engineering, Bengaluru, India Bachelor of Engineering in Electronics and Communication	Aug 2018 – Aug 2022

TECHNICAL SKILLS

- **Programming & Databases:** Python, SQL, R, Bash, Pandas, NumPy, PySpark, Git, PostgreSQL, MySQL
- **Machine Learning & AI:** Deep Learning, CNNs, RNNs, NLP, Time Series Forecasting, Reinforcement Learning, Model Evaluation & Tuning, Scikit-learn, TensorFlow, PyTorch, OpenCV, Hugging Face, LangChain
- **Cloud & MLOps:** AWS (S3, Glue, Redshift), Azure (ADF, Databricks), Airflow, Docker, Kafka, CI/CD, ETL, Stream & Batch Processing
- **Data Visualization & Analytics:** Tableau, Power BI, Matplotlib, Seaborn, Streamlit, KPI Dashboards, A/B Testing, Statistical Modeling

EXPERIENCE

Illinois Institute of Technology AI/ML Research Assistant	Jun 2025 – Present Chicago, USA
<ul style="list-style-type: none">• Developed a Reinforcement Learning pipeline using PPO in OpenAI Gymnasium (Ant-v4) with MuJoCo physics simulation, applying real-time training and policy optimization with Stable-Baselines3.• Integrated trained agents into a custom Unity 3D environment with Meta/Oculus VR using socket programming, enabling immersive and interactive visualization of intelligent RL behaviors.	
Illinois Institute of Technology Teaching Assistant - Data Preparation and Analysis	Jun 2025 – Present Chicago, USA
<ul style="list-style-type: none">• Guided graduate students in data wrangling, feature engineering, dimensionality reduction, and model evaluation using Python, R, Pandas, and SQL, while explaining concepts and reinforcing best practices across the data science workflow.	
Open Avenues Foundation Data Scientist - Build Student Consultant	Sep 2024 – May 2025 Chicago, USA
<ul style="list-style-type: none">• Developed a computer vision pipeline to detect and classify highlight-worthy moments from 120+ minutes of volleyball footage using OpenCV, XGBoost, and motion-based features, achieving an 88% F1-score on test clips.• Automated generation of 1-2 minute highlight reels, reducing manual editing time by 80% and delivering final outputs in under 3 minutes.	
Boeing India Private Limited Data Analyst	Aug 2022 – Jul 2024 Bengaluru, India
<ul style="list-style-type: none">• Improved booking efficiency by 30% by building SQL pipelines across MySQL and MSSQL using complex joins and aggregations for real-time KPI dashboards — earned cross-functional recognition for business impact.• Achieved \$60K+ in annual savings by reducing reporting latency by 98% (from 20 hours to 20 minutes) through stored procedure tuning, CTEs, indexing strategies, and parallel execution in MSSQL.• Standardized metrics and improved data access by creating SQL templates across teams, earning recognition for cross-functional leadership.• Resolved 500+ data security issues by automating validation checks with Python, ensuring compliance and data integrity.	
Exposys Data Labs Data Analyst Intern	Jul 2019 – Sep 2019 Remote, India
<ul style="list-style-type: none">• Built a Python-based ETL pipeline using Pandas and MySQL to clean, normalize, and process 25K+ operational records, reducing manual prep by 60% and enabling faster feature extraction and exploratory analysis for ML experimentation.	

PROJECTS

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