

SACHIN LODDIYA KARTHIK

☎ 517-243-9938 ✉ sachinlkece@gmail.com 🌐 [Sachin](#) 🐙 [GitHub](#) 📁 [Portfolio](#) 📍 USA — Open to relocation

SUMMARY

AI/ML Engineer with 3+ years of experience in **Data Science & Analytics**, building end-to-end data solutions and deploying production **LLM applications**. Reduced manual processes by up to **85%** through automated AI solutions using Python and cloud platforms. Proficient in **Python**, **cloud platforms (Azure/AWS)**, and deploying **conversational AI systems** and **MLOps pipelines**.

TECHNICAL SKILLS

Generative AI and NLP: Large Language Models (LLMs), Natural Language Processing (NLP), Generative AI (GenAI), Text Classification, Language Models, Conversational AI, Text Embeddings, Model Deployment
Machine Learning and AI: Scikit-Learn, XGBoost, TensorFlow, PyTorch, OpenCV, Keras, LangChain, FAISS, OpenAI API, Gemini
Programming Languages: Python, R, SQL (T-SQL, PL-SQL), Java, C++, HTML, CSS, JavaScript
Statistical Analysis: Regression (Linear/Logistic), ANOVA, Hypothesis Testing, Time Series, Clustering (K-Means, DBSCAN), PCA
Data Engineering: Apache Spark (PySpark), Apache Kafka, Apache Airflow, Databricks, Delta Lake, Docker, Kubernetes
Cloud Platforms: Azure (Data Factory, Synapse, ML Studio, DevOps), AWS (S3, EC2, Glue, Athena, SageMaker), GCP (BigQuery, Dataflow, Pub/Sub)
Databases and Querying: PostgreSQL, MySQL, MS SQL Server, Azure SQL, Oracle DB, NoSQL (MongoDB), SQLite
Visualization and BI Tools: Power BI, Tableau, Seaborn, Matplotlib, Plotly
MLOps and Development: Git, GitHub, MLflow, Streamlit, FastAPI, VS Code, Jupyter Notebook, RStudio, PyCharm

EXPERIENCE

- AI Engineer Intern — Goodie Bag, USA** Jun 2025 – Present
- Designed and deployed a stateful conversational AI with **FastAPI** to handle **7+ customer support use cases**, reducing manual ticket handling by **30%**.
 - Engineered a high-performance, **non-blocking API** processing **500+ daily transactions** for real-time refunds and ticket creation.
 - Devised a Python-based reporting system ingesting **15+ data sources** to auto-generate PDF reports and actionable business insights.
- Data Scientist — WMU, USA** Jan 2025 – Apr 2025
- Created an automated class scheduling optimizer using **Google OR-Tools**, reducing manual scheduling effort by **85%** for 200+ course assignments.
 - Built a **Streamlit** interface for real-time CSV ingestion/validation, minimizing data errors by **90%**.
 - Applied **operations research** and constraint optimization to generate **100% conflict-free schedules** for **5 academic departments**, accommodating **20+ instructor preferences** and **15+ classroom resource constraints**.
- Data Scientist — Green Expectations LLC, USA** Jan 2024 – Apr 2024
- Formulated a rule-based **Home Sustainability Scoring model** leveraging **1,000+ data points**, enhancing recommendation accuracy by **35%**.
 - Refined NLP chatbot workflows, reducing latency by **40%** and improving user engagement by **25%**.
 - Directed feature engineering for sustainability predictions across varied user profiles, improving model accuracy by **15%**.
- Data Engineer — Accenture, India** Jul 2021 – Jul 2023
- Architected ETL pipelines using **Azure Data Factory** and **Databricks**, improving data processing efficiency by **40%** and accuracy by **25%**.
 - Enhanced batch transformation workflows on **Data Lake Gen2**, halving processing times while maintaining schema consistency across diverse datasets.
 - Constructed **Power BI** dashboards and integrated CI/CD pipelines, accelerating delivery speed by **30%**.
- Data Engineer — Claritrics India Pvt Ltd, India** Nov 2020 – May 2021
- Implemented **OCR-based document processing systems** via **OpenCV** and **Python**, boosting text extraction accuracy by **30%**.
 - Streamlined recurring workflows by automating manual processes, reducing processing time by **40%** and boosting team efficiency.

EDUCATION

MS in Data Science — Western Michigan University Aug 2023 - Apr 2025
GPA: 3.86/4.0 • Coursework: Machine Learning, NLP, GenAI, Big Data Analysis, Business Data Management Kalamazoo, MI

PROJECTS

- Ask My PDF – LLM-Powered Document Q&A System** (LangChain, FAISS, BM25, PyMuPDF) Apr 2025 – May 2025
- Engineered a scalable, multilingual **PDF Q&A system** that combines **LLMs with hybrid retrieval (FAISS + BM25)** to deliver context-aware answers over long, unstructured documents.
 - Launched a **Streamlit-based web app** supporting multi-PDF uploads and memory-aware chat sessions, delivering **real-time AI-powered responses** that reduced user query time by **40%**.
- Enhanced ATS Resume Expert Pro** (Streamlit, Gemini Pro, PyMuPDF, scikit-learn, Plotly) May 2025 – Jun 2025
- Constructed a **Streamlit web app** leveraging **Google Gemini Pro** to analyze resumes against job descriptions, achieving **85% accuracy** in semantic and keyword-based matching for ATS optimization.
 - Integrated **PDF/DOCX parsing**, **TF-IDF + cosine similarity**, and **skills gap detection** to provide **actionable insights**, boosting resume relevance scores by **up to 30%** for users.
 - Generated **Plotly** dashboards with exportable **PDF/JSON reports** and **SQLite** tracking, improving generation speed by **30%**.