

Aditey Kshirsagar

Bachelor of Technology
K.J. Somaiya School of Engineering

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GitHub Profile
LinkedIn Profile

PROFILE

- Third-year Computer Engineering student passionate about leveraging data science and machine learning to solve complex problems in healthcare, cybersecurity, and agriculture. Experienced in end-to-end data workflows - from cleaning and analysis (Python, R, SQL) to building ML models (PyTorch, TensorFlow, Scikit-learn) with 90%+ accuracy. Proven track record of implementing NLP-based solutions and translating data into actionable recommendations.

EDUCATION

- **Bachelor of Technology in Computer Engineering (Honours in Data Science and Machine Learning)** 2023-2027
K.J. Somaiya School of Engineering GPA: 9.33

EXPERIENCE

- **ML (Machine Learning) Engineer/Developer** Remote – HQ: New York, USA
Omdena May 2025 – Present
 - Contributed to two AI-driven **global NGO** collaborations under Omdena, **leading the development team** and supporting frontend and ML integration efforts across healthcare and agriculture domains.
 - Built and integrated a React Native frontend for CropCycle, a smart crop rotation solution, and connected it to a Django/FastAPI backend serving ML models with **92% accuracy across 15,000+** crop data points.
 - Reviewed and provided design feedback on Figma prototypes for VisionVitals, ensuring intuitive UI/UX alignment for a remote diagnostic vision screening platform.
 - Collaborated on ML workflows involving Random Forest classification and Genetic Algorithms, while **implementing REST APIs, JWT auth, and Redis caching to optimize API response times by 60%**.
- **AWS Cloud Club Captain** Remote
Amazon Web Services (AWS) Nov 2024 – Present
 - Selected by AWS to lead and grow a Cloud Club community of students, curating technical events, mentorship sessions, and cloud innovation projects.
 - Collaborating with AWS Community team directly to advance student learning and engagement in AWS technologies.
- **AI (Artificial Intelligence) Cyber Lab Analyst** Mumbai, India
DeepCytes Cyber Labs Feb 2025 – Present
 - Developing **AI-driven cybersecurity** solutions for malware detection and threat analysis.
 - Trained AI-powered LLMs (Large Language Models) for malicious threat detection, achieving a **success rate of over 75%** in identifying and mitigating potential risks.
 - Implementing **NLP-based sentiment security** measures for regulatory compliance automation.
- **Software Development Intern** | KJSCE Software Development Cell
- **Software Development Intern** | Creaovate
- **Operations Head (Formerly Team Member)** | ISTE, Indian Society for Technical Education, KJSCE

PERSONAL PROJECTS & ACHIEVEMENTS

- **DocuSage – The Oracle of All Files** (Python, OpenAI GPT-4, VoyageAI, AstraDB) :
 - * Built a high-accuracy retrieval-augmented generation (RAG) pipeline with automated format normalization, transformer-based embeddings, and Astra DB vector search, delivering context-rich answers with 97%+ accuracy across 10,000+ multi-format documents.
 - * Engineered precision-oriented context retrieval and synthesis using adaptive text chunking, semantic similarity thresholds, and relevance-ranked retrieval – processing complex queries end-to-end in approximately 20 s to ensure maximum recall and factual correctness at scale (>1,000 daily document queries).
- **Comparative Cancer Detection Models** (Python, Scikit-learn, PyTorch, XGBoost, Flask, matplotlib/seaborn) :
 - * Built and evaluated three cancer detection models (Logistic Regression, Random Forest, CNN) using the Breast Cancer Wisconsin dataset. Achieved 93.2% accuracy with the CNN model after hyperparameter tuning and regularization.
 - * Conducted model comparison across key metrics (AUC, F1, sensitivity/specificity) to create a deployment-ready framework with REST API. Visualized model decisions using SHAP to explain predictions and improve trust in clinical settings.
- **Gold Medalist in National Science Olympiad.**

TECHNICAL SKILLS

Programming & Scripting: Python, R, SQL, JavaScript, C/C++, Java
Data Science & ML: Pandas, NumPy, Scikit-learn, PyTorch, TensorFlow, Keras, Matplotlib, Seaborn
Machine Learning & AI: Random Forest, Genetic Algorithms, NLP, GPT Models, Feature Engineering
Big Data & Analytics: Apache Spark, Excel, Data Analysis, Data Visualization, Statistical Analysis
Databases: MongoDB, PostgreSQL, Redis, Vector Databases, Firebase, Data Warehousing
Cloud & Tools: AWS (in progress), Azure, Docker, Git, GitHub, Jupyter, VS Code, Postman, REST APIs
Soft Skills: Communication, Analytical Thinking, Problem Solving, Leadership, Data Storytelling