RAKSHITHA KASHYAP

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EDUCATION

Pace University, Seidenberg School of Computer Science and Information Systems — New York, NY
Master of Science (MS) in Computer Science | **Concentration**: Data Science — May 2026

Jyothy Institute of Technology — Bangalore, India
Bachelor of Engineering (BE) in Computer Science | **GPA:** 8.46/10 — May 2024

TECHNICAL SKILLS

Programming Lanugages: Python, Java, HTML, CSS, SQL | **Libraries:** Pandas, NumPy, Scikit-Learn, TensorFlow, Keras, PyTorch
Data Analysis & Visualization: Power BI, Tableau, Seaborn, Matplotlib | **Web Development:** FastAPI, Flask, Streamlit
Big Data Technologies: Hadoop, Apache Spark, PySpark, Databricks | **Machine Learning & Deep Learning:** CNN, RNN, LSTM, GAN
Cloud Platforms: AWS (S3, EC2, Lambda), Google Cloud (BigQuery, Cloud Functions), Azure
Database Management: MySQL, MongoDB, PostgreSQL, SQLite |**Cloud-Native Technologies**:Docker, Kubernetes, Helm

ACADEMIC PROJECTS / PERSONAL PROJECTS

Industrial Machine Predictive Maintenance using IoT Data — May 2024 – June 2024

- Developed a predictive maintenance model leveraging real-time IoT sensor data to detect early equipment failures, reducing downtime by utilizing Random Forest & XGBoost for failure prediction with 95% accuracy.
- Processed and cleaned large datasets using Pandas & NumPy, removing null values and outliers, and visualized results with Power BI to optimize maintenance strategies.

Pharmaceutical Management Tool — February 2024 - May 2024

- Built a deep learning-based prescription digitization tool using Convolutional Neural Networks (CNN), Tesseract OCR, and LSTM, enabling real-time text extraction from handwritten prescriptions.
- Integrated MySQL for database synchronization, Flask for web application deployment, and Telegram API to deliver real-time alerts on drug manufacturing details and pricing, enhancing prescription management.

Generative Adversarial Network (GAN) for Image Super-Resolution — January 2024 – April 2024

- Implemented GAN to enhance resolution of low-quality images by generating high-quality counterparts, training model with 3k+ low & high-resolution image pairs to achieve realistic high-definition output.
- Increased image resolution using TensorFlow & Keras to analyze images & assign corresponding resolution value, training model using OpenCV to bring images to standard for optimized performance.

PROFESSIONAL EXPERIENCE

Quantium Data Analytics Job Simulation on Forage — New York, January 2025

- Processed and analyzed large transaction dataset to extract key insights, applying feature engineering and data transformation to generate data-driven commercial recommendations for improved product performance.
- Benchmarking & Report Generation – Identified benchmark stores for uplift testing using statistical analysis, A/B testing, and clustering techniques, leveraging insights with Power BI and SQL to create detailed reports for the Category Manager, driving strategic decision-making.

Tata Consultancy Services — Bangalore, India
Generative AI Intern — September 2023 – November 2023

- Engineered Q&A-enabled web application using Streamlit & FAISS, allowing real-time, context-driven conversations with large PDF documents (2k+ pages), allowing users to quickly extract necessary data from PDF documents.
- Implemented FAISS for vector storage & retrieval, processing large PDFs with progress bars & time estimations while integrating memory-based chat model (OpenAI) to enable dynamic, context-aware conversations with content in real time.

TXON — Bangalore, India
Machine Learning Intern — April 2023 – May 2023

- Applied neural networks & machine learning models to develop predictive models for real-world applications, including deep learning-based image colorization, facial recognition system.
- Realistic color predictions for grayscale photos were made using pre-trained deep neural networks (such as CNNs or U-Net), with OpenCV handling preprocessing, TensorFlow/PyTorch handling model usage, and NumPy handling data.
- Face detection performed using Dlib's HOG/CNN-based detector, followed by face identification using pre-trained models and distance metrics, with OpenCV for manipulation and the face recognition package for feature extraction.

ACHIEVEMENTS

State-Level Ideathon -1st Place — Bangalore,2023

- Led a team in proposing an innovative **smart wristband** for real-time health monitoring during COVID-19 to reduce hospital overload and help individuals take preventive measures.
- Designed the concept to track early COVID symptoms, providing continuous health insights. Developed an early alert system that notified users when multiple symptoms were detected, recommending a doctor's visit for timely intervention.