Akshara Sharma

Software Developer

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EDUCATION

- **Amity University, Noida, Uttar Pradesh, India** **Sept 2022 – May 2026**
  B. Tech Computer Science & Engineering (Specialisation: Data Science)
  Cumulative GPA: 8.92 / 10

WORK EXPERIENCE

- **GenTA** **April 2025 – June 2025**
  Artificial Intelligence Intern **|** **Link** **Seoul, South Korea (Remote)**
  - Built an AI-powered bilingual library recommendation system with 97.8% accuracy, reducing user search time by 89% and processing 150K+ book queries using HyperCLOVA AI, KDC mapping, and scalable backend pipelines.
  - Designed RESTful APIs and optimized MongoDB schema to handle 25K+ discussion threads at 98.7% data integrity, integrating role-based access control and automated content generation workflows with 99.4% uptime and 95.2% user satisfaction.
- **Thales** **August 2024 - November 2024**
  Software Engineer Intern **|** **Link** **Noida, India**
  - Engineered a real-time offensive content detection system for doodles using CLIP and Gemini APIs, achieving 97.67% accuracy and enabling seamless integration with creative web platforms.
  - Developed RESTful API services and a live-tracking graphical interface for sketch analysis, improving detection responsiveness by 40% and aligning with industry benchmarks for scalable content safety solutions.
- **Defence Research & Development Organisation** **May 2024 - July 2024**
  Software Engineer Intern **|** **Link** **Delhi, India**
  - Designed and deployed an AI-driven traffic forecasting system with 98.35% accuracy, reducing energy consumption by 40% and boosting resource allocation efficiency by 30% across defence networks.
  - Built scalable Python + SQL pipelines on 50K+ datapoints, automating data analysis workflows and collaborating with analysts to translate operational requirements into system-level forecasting solutions.

SKILLS & INTERESTS

- **Languages:** Python, C/C++, Java, MATLAB
- **Web Development:** HTML, CSS, JavaScript, ReactJS, Django, NodeJS, RESTful APIs, Web Services
- **Databases:** MySQL, MongoDB, PostgreSQL
- **Tools & Technologies:** Git, GitHub, Linux
- **AI/ML:** Machine Learning, Deep Learning, Generative AI, Computer Vision, Natural Language Processing
- **Frameworks:** TensorFlow, PyTorch, Hugging Face, RAG, LangChain, AutoGen, CrewAI, Haystack Agents (Agentic AI), Transformers
- **Core Concepts:** Data Structures and Algorithms, DBMS, Operating Systems, Object Oriented Programming, Computer Networks

PROJECTS

- **RouteVision AI – AI-Powered Traffic Monitoring & Prediction | GitHub**
  - Developed a full-stack system for real-time traffic monitoring across camera networks, integrating RESTful APIs and SQL database pipelines for scalable data collection.
  - Implemented predictive analytics to forecast traffic congestion and built a simulation engine to optimize urban traffic signals, improving efficiency in mobility planning.
- **Real-time Ganga Riverwater Quality Forecasting Using AI-Enabled DSS, Satellite Data and IoT Sensor Data | GitHub**
  - Engineered a decision support system (DSS) integrating 5,000+ IoT and satellite datapoints into a SQL-backed architecture, raising water quality forecasting accuracy to 97.86%.
  - Built interactive dashboards and reporting modules, enabling stakeholders to visualize trends, generate 3–5 day forecasts, and make actionable environmental decisions.
- **AccessiTube AI – Neurodivergent-Focused YouTube Content Adaptation Platform| GitHub**
  - Designed an AI-powered accessibility platform with an end-to-end RAG + API pipeline, integrating Gemini AI, system audio capture, and multi-format adaptation for real-time content accessibility.
  - Automated content transformation into simplified summaries, visual breakdowns, and bullet point formats, serving 4+ accessibility modes with 95%+ accuracy and seamless Google Docs integration.

PUBLICATIONS

- Presented *"AI-Driven Decision Support System for Real-Time Ganga River Water Quality Monitoring and Forecasting Using IoT Sensors"* at the **International Conference on Ultra-Modern Telecommunications and Control Systems (ICUMT) 2024**. (**Link**)

CERTIFICATIONS & ADDITIONAL INFO

- Coursera- Machine Learning Specialization by Andrew Ng (**Link**)
- CrewAI- Course on CrewAI (**Link**)
- Recipient of Amity Merit Scholarship (2023-2024) (**Link**)
- Smart India Hackathon 2024 Finalist (**Link**)
- NPTEL- Python for Data Science (**Link**) & Software Conceptual Design (**Link**)