

Abhinav Tiwari

Bachelor of Technology

Motilal Nehru National Institute of Technology Allahabad, Prayagraj

My Portfolio

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EDUCATION

- Motilal Nehru National Institute of Technology Allahabad** 2021-2025
Bachelor of Technology CPI: **8.04**
- Intermediate | S.K.D. Academy** 2020-2021
Central Board of Secondary Education, Uttar Pradesh Percentage: **95.6**
- Matriculation | S.K.D. Academy** 2018-2019
Central Board of Secondary Education, Uttar Pradesh Percentage: **94.4**

EXPERIENCE

- Shorthills AI** March 2025 - Present
SDE Intern Gurugram, Haryana
 - Gained hands-on experience in **SQL**, **Python**, and **Advanced Excel** for data handling and **Generative AI**.
 - Developed AI-driven solutions including **Retrieval-Augmented Generation** pipelines and custom **OCR models**.
 - Performed **sanity testing** and **unit testing** using Python scripts and SQL queries.
 - **Fixed bugs** and performed **frontend/backend testing** on **client onboarding projects**.
 - Queried and analyzed complex databases using **DBeaver**, enhancing understanding of large-scale data systems.

PROJECTS

- Multimodal Learning for Hinglish Meme Classification** GitHub
Built a sentiment analyzer using the Memotion 3.0 dataset, leveraging both text and image features.
 - **Tools & Technologies:** Python, TensorFlow, Keras, Pandas, NumPy, Matplotlib.
 - Combined DistilBERT-Multilingual for text and VGG16 for image processing in a multimodal model.
 - Performed sentiment and emotion classification, achieving an overall F1-weighted score of **78.82%**.
 - Greatly improved over unimodal models in Humor (**90.04%**) and Motivational (**95.62%**) categories.
- Document Processing Automation using OCR and RAG** GitHub
Developed an AI-powered system to extract, process, and retrieve document information for business automation.
 - **Tools & Technologies:** Python, Transformers, Tesseract OCR, LangChain.
 - Automated document data extraction and intelligent retrieval using OCR with Retrieval-Augmented Generation.
 - Reduced manual document review effort, enabling faster access to key information.
- Handwritten Digit Recognition Model** GitHub
Implemented and trained a fully-connected neural network from scratch to classify handwritten digits (MNIST dataset).
 - **Tools & Technologies:** Python, NumPy, Pickle, Matplotlib, Keras (dataset).
 - Implemented core components including **ReLU activation** and **Softmax** output layer for multi-class classification.
 - Achieved **93% accuracy** by optimizing weights using backpropagation and gradient descent (GD).

TECHNICAL SKILLS

Languages: Python (LinkedIn Certified Top 5%), SQL, C++, C
Technologies: Data Warehousing, ETL Pipelines, Transformer Models, LLMs, Generative AI, RAG
Developer and Analytics Tools: VSCode, Power BI, MS Excel, Jupyter Notebook, Spyder, MySQL, Git
Cloud/Big Data Tools: AWS (Basics), Apache Spark (Basics)
Soft Skills: Critical Thinking, Data-driven Decision Making, Troubleshooting, Communication, Collaboration

INTERESTS

- Data Science and Analytics
- Machine Learning
- Mathematics
- Puzzling and Quizzing
- Generative AI
- Debating

ACHIEVEMENTS

- Got an LOR from Bharat Petroleum CRDC and TPO MNNIT. August, 2024
- Winner of Just in Case under Nirmaan in Avishkar March, 2024
- Winner (team) of Gnosis India Quiz August, 2022
- Winner Chemathlon under Rasayan (Mock Placement Drive) March, 2024

POSITIONS OF RESPONSIBILITY

- Training and Placement Representative of the batch 2025
- Member of Expanding Horizons 5.0 (under Student Mentorship Program).
- Member of Hospitality Team in gnoTalks 2024.