AMAN KUMAR SINGH

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EDUCATION

VIT Bhopal   **2022 – 2026**
B.Tech - Computer Science and Engineering   *CGPA- 9.2*

COURSEWORK

Data Structure and Analysis of Algorithm
Methodologies & Concepts: System Architecture, Git , Data Analysis
Technologies/Framework/Practices: React, Node.js, SDLC, Security, Application Resiliency , MongoDB , PostgreSQL
Coursework: Object-Oriented Programming, Computer Networks, Database Management Systems, Operating Systems, Artificial Intelligence and Machine Learning, AWS Cloud Practioner , Linear Algebra , Engineering Design and Modelling

WORK EXPERIENCE

Omdena - Chapter Lead [Berlin , Germany (Remote)]   **May , 2023**
- Designed and implemented data pipelines for feature extraction, normalization, and sequence generation to enhance multi-step prediction accuracy by 15%.
- Led the development of a three-layer LSTM neural network in Python and TensorFlow to forecast 14-day temperature and precipitation trends using a 100,000+ row Kaggle weather dataset.
- Performed model evaluation and tuning using MAE and RMSE metrics, resulting in a 10% reduction in forecast error over baseline models.

PROJECTS

Shadowstamp : Blockchain based Invisible Watermarking Platform   **Apr, 2025 - Jun, 2025**
- Designed a secure content authentication platform using Solana blockchain and SHA-256 for tamper-proof verification.
- Integrated YOLO and OpenCV to embed invisible watermarks in media files, preserving content integrity.
- Developed responsive UI with React, TailwindCSS, and TypeScript, enhancing user interaction.

VTOP-ML Driven Face Attendance System for VIT   **May, 2024 - Jul, 2024**
- Developed a facial recognition attendance system automating marking for 10,000+ students with 70
- Designed a Tkinter GUI for student management, streamlining registration and data capture, reducing manual work by 80%.
- Trained model with 100 face images per student, enabling reliable recognition and CSV attendance export.

CodeMindAI: Micro SaaS Platform for AI Code Generation and Developer Assistance **Aug, 2024 - Sep, 2024**
- Developed CodeMind AI, an open-source micro SaaS coding assistant with 30% accuracy.
- Improved developer workflow by 30% using live coding with Sandpack and Tailwind CSS UI optimization.
- Employed preprocessing and the cosine similarity to achieve RMSE of 0.136 for accurate recommendations.

SKILLS AND CERTIFICATIONS

Languages, Frameworks Tools: Python, SQL, TensorFlow, scikit-learn, Pandas, NumPy, Power BI, MS Excel, Git, Tableu , Qlik Sense Dataiku, Natural Language Processing (NLP) frameworks
Area of Interest: Machine Learning, Deep Learning, Data Analysis, Natural Language Processing, AI Research
Interpersonal Skills: Accountability, Adaptability, Team person, Active Listening, Networking, Patience

ACHIEVEMENTS

- Top-5 Finalist in **Anti-Piracy Hackathon** Initiated by World Audio Visual Entertainment Summit for MSME Industry and Conducted by Ministry of Maharashtra.
- Sharpened data structures and algorithms proficiency by completing over 450 coding challenges on LeetCode and GeeksforGeeks, improving code efficiency and reduced runtime.

CO-CURRICULAR ACTIVITES

Joint Secretary - BitsbyBits Club VIT Bhopal
- Conducted technical workshops, coding bootcamps enhancing programming skills and community engagement.

Team Lead at Mozilla Firefox Club, VIT Bhopal
- Organized 5+ hackathons and coding events, increasing participation from 100 to 300+ students.

Student Council - Discipline Committee at VIT Bhopal
- Ensured smooth conduct of campus activities by maintaining order during events and enforcing institutional code of conduct.