VANSHIKA SHARMA

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EDUCATION

- **M.Tech - Engineering Systems (Computer Science Specialization)** **Aug 2021 – Jun 2023**
  Dayalbagh Educational Institute, Agra CGPA: 9.73/10
  Focus: Deep Learning and Explainable AI | Director's Honor List | Gold Medalist

- **B.Tech - Electrical Engineering (Computer Science Specialization)** **May 2017 - Jun 2021**
  Dayalbagh Educational Institute, Agra CGPA: 9.13/10

WORK EXPERIENCE

SCISPOT **Oct 2023 - Mar 2024**
Role: Full Stack Developer | Focus: Front End Development and A.I **Kitchener, Canada *(Remote)***

- Developed Scibot, an AI assistant for Scispot's Lab OS, streamlining lab operations with an AI-driven chat interface, cutting manual errors by 95%, speeding up experiment setup by 90%, improving workflow automation and data access.
- Implemented NLP automation in Ask AI for lab data analysis, boosting workflow efficiency by 40%.
- Designed Scispot's Knowledge Graph (React.js, Neo4j, D3.js, LLMs, REST APIs), improving search efficiency by 70%.
- Built and deployed a responsive dashboard optimizing frontend for web/iPad to enhance UI/UX and performance.

GENIUS INDIA PVT. LTD **Apr 2020 - Aug 2020**
Role: Summer Intern | Focus: Machine Learning and NLP **Bangalore, India *(Remote)***

- Mastered Python and applied Machine Learning models to 6 hands-on ML projects, delivering tangible results.
- Contributed to 'Recruitize', developing NLP-powered resume screening website to streamline hiring in a team of 5.

IIT DELHI **May 2019 - July 2019**
Role: Research Intern | Focus: Image Processing and Cloud Computing **New Delhi, India**

- Contributed to an Image Inpainting model with 90% accuracy improvement for restoration tasks and built a Sudoku app (ReactJS, HTML5, SQL) deployed on Heroku, as part of the 'Common Computing Infrastructure' project.

PROJECTS

- **Explainable AI and Multimodal Deep Learning for Skin Lesion Classification**
  Tech Stack: Python, TensorFlow, NumPy, Pandas, Matplotlib, OpenCV, LIME, SHAP.
  Designed a multimodal deep learning model integrating CNN and transfer learning, achieving 91% accuracy.
  Incorporated XAI techniques (LIME, SHAP, GRADCAM) for improved interpretability in medical diagnostics.
- Developed a Precision Dairy Farming system using Angular, Node.js, and SQL for real-time livestock supervision.
- Real-time IoT-Based Pothole Detection System using Arduino and sensors to prevent road accidents.

TECHNICAL SKILLS

- **Programming Languages**: C++, Python
- **Web Development:** HTML5, CSS, Javascript, Libraries & Frameworks: React.js, Angular, Node.js
- **Databases:** MySQL (Relational), MongoDB (NoSQL), Neo4j (Graph)
- **Graphics, Design & Visualization:** OpenGL, D3.js, Three.js, Spline, Figma (UI/UX Design)
- **AI & Machine Learning:** TensorFlow, PyTorch, NLP, LLMs , Computer Vision, Explainable AI
- **Cloud & DevOps:** AWS, Google Cloud Platform (GCP), Git, CI/CD, Docker, Kubernetes, RESTful APIs, LINUX

ACHIEVEMENTS & CERTIFICATIONS

- Qualified UGC NET (CS) – 99.5% (Oct '24), 99.45% (Feb '25) | SBI SO Mains (Jan'25) |GATE CS (Mar '25)
- Ranked 11th among 14,000+ in Mercer Mettl's AI Arena 2.0 for AI/ML problem-solving (Mar '24)
- Selected for University of Sydney Technical Exchange Program – focused on Web Dev and 3D Printing (Jun '19)
- AI Fundamentals (DataCamp) - **Certificate**, Generative AI (Simplilearn) - **Certificate**

POSITIONS OF RESPONSIBILITY

- Coordinated a Medical Camp (Apr 2022 - May 2023), leading biometric registrations and managing patient data.
- Represented B.Tech (2017-21) and M.Tech (2021-23) as Class Representative.
- Volunteered 240+ hours with NSS (Dec 2017), supporting community development.