

Sourabh Kumar Soni

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📍 Pilani, India

🌐 LinkedIn

EDUCATION

Daffodils World School, Sikar, 10th and 12th

Scored 98.00% in 10th and 99.00% in 12th

Birla Institute of Technology and Sciences, Pilani,

Bachelor of Engineering in Computer Science

Grade:- 8.86

2025 – 2029

(ongoing)

Past Experiences

Stern School of Business, NYU, Machine Learning Research Assistant

04/2026 – 07/2026

- I researched and wrote code on various LLMs and their relation with pricing, scraping data, making models.
- Used BERT models, and also newer embedding models like Qwen3-Embedding, NV-Embed-v2, BGE-M3, or E5, and developed scalable data pipelines and ran them on H100 GPUs

Remote

CelestiOS (funded by LvlUp Ventures), Frontend Developer Intern

05/2026 – 07/2026

- Migrated the entire HTML/CSS/JavaScript codebase to a scalable React architecture with reusable components and optimized rendering.
- I also conducted regression and edge case testing to identify performance bottlenecks and production critical defects.

Remote

TECHNICAL SKILLS

Python, C, HTML, CSS, JavaScript, C++, SQL, Django

ACHIEVEMENTS

AIR 515 in JEE Mains and AIR 2803 in JEE Advanced

Being in the top 0.0002% of India

Top 1% in NSEC and NSEP and IOQM Qualified

Rated 1900 CodeForces at the age of 14

I started coding from grade 6 build games in python and then started my competitive programming career and the left it for JEE

98.00 in CBSE 10th and 99.00 in CBSE 12th

ATF Top 1% nationwide

A coding competition hosting 35k+ participants

Aryabhata Ganit Challenge Winner

Hosted all over India for CBSE students in grade 10th

STSE Rank 2 in Grade-12 and STSE Rank 16 in Grade-10

State Talent Search Exam by Government of Rajasthan

College Clubs

Team Robocon, *Robotics & AI Engineer*

02//2026 – Present
Pilani, Rajasthan

- Organised RoboWars having participants from all over the country.
- Made multiple in-house bots and robots and trained them.
- AI-model for detecting agricultural pests using **finetuned YOLOv8 / YOLOv9 / YOLOv10** on the **IP102 benchmark dataset**. Exported the trained model to **ONNX format** for cross-platform deployment

Kalipatnapu AR & VR Lab, *AI Researcher*

03/2026 – Present
Pilani, Rajasthan

- Made and trained a model to check for ADHD among individuals tried models like **OpenGaze, GazeNet, RT-GENE, iTracker, L2CS-Net, and ETH-XGaze**, head pose estimation models like **WHENet, FSA-Net, and 6DRepNet, OpenFace 2.0** and for running them AR/VR glasses with limited compute **MobileNetV3 and EfficientNet-Lite, along with ONNX and TFLite optimization**.
- Researched on using AI and LLMs to create a hyper-realistic shadow for objects using **Encoder-Decoder CNN, Conditional GAN + Inverse Tone Mapping** pipeline.

Prahlada OpenAI Research, *SystemML Researcher and Founding Member*

06/2026 – Present

- Contributing to Open-Source Libraries like **Tinygrad and vLLM**, and working on **AMD ROCm, ROCm Docker Diet**, trying to run LLMs on laptop clusters.

Indian Game Theory Society, BITS Pilani Chapter, *Founding President*

05/2026 – Present

Teaching Game Theory and Organising Lectures, Games, and Projects

► PROJECTS

GiftSenseAI, *Figure out what to gift your loved ones.*

08/2025 – 11/2025

- Scaled to 1.8k total customers with 300 paying customers, each paying 5\$ a month and 11 paying 8\$ a month.
- Made an app using Gemini API keys to personalize gifts after taking inputs from the users.

Emotion Recognition Model | Python, PyTorch, Librosa, *Developed a CNN-based emotion classifier trained on the RAVDESS dataset, achieving ~90% validation accuracy across 8 emotion classes*

ML model for Quadeye Market Data Prediction Challenge, *Built and trained a dataset to predict the value of a variable 'Y' and ranked 18 among 3390 submissions*

IEEE Othello Reinforcement Learning Agent | Python, PyTorch (CUDA), NumPy

• Developed a behavioral cloning pipeline using PyTorch to reconstruct board states from ~25k expert Othello games, ensuring high-quality supervised training data, achieving 99% win rate vs random agents in ~20k RL episodes.

AirScribe [↗](#), *an open-source macOS voice dictation app*

07/2026 – Present

- Architected a dual-path on-device ASR pipeline for macOS (custom model + Apple Speech fallback) with SHA-256 verified, resumable model downloads and automatic Apple engine failover during model provisioning
- Built a diff based validation layer that discards LLM generated rewrites/translations when entity or numeric fidelity checks fail against the original transcript

ML Techniques

CNNs | Reinforcement learning | Transfer Learning | NLP | Computer Vision

ML Frameworks

PyTorch • Scikit-learn • Pandas • NumPy • Matplotlib

Volunteering

Royal Statistical Society , <i>e-Student and Member</i>	10/2025 – Present
• Spearheading the initiative to build and scale a collaborative community of statistics and probability enthusiasts by organizing technical meetups, research discussions, and networking sessions. • Connecting students, researchers, and professionals to foster knowledge exchange and interdisciplinary collaboration	
National Service Scheme(NSS) BITS Pilani , <i>Sponsorship Associate and Mathematics Teacher</i>	08/2025 – Present Pilani, India
• Taught underprivileged kids of Class 11th Mathematics.	

CO-CURRICULAR ACTIVITIES

Piano, Badminton, Poker, Table Tennis, Robotics, Rubik's Cube