Arnav Pranvesh Tripathi

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EDUCATION

Manipal Institute Of Technology, Manipal **July 2023 - September 2027**

- B. Tech in Computer and Communication Engineering | CGPA: 8.92
- Achiever's Scholarship recipient for academic excellence in 2nd Year (2024-25)

EXPERIENCE

Head of Management and Founding Member | Innotech Manipal **May 2024 - Present**

- Co-founded Innotech Manipal, a multidisciplinary research based student project developing innovative solutions to real-world problems.
- Designed the official logo and team T-shirt, establishing the project's visual identity.
- Co-authored and published a research paper in collaboration with team members (under review).

Team Member and Volunteer | Sociio Ichor **February 2024 - Present**

- Developed and implemented technical solutions to streamline healthcare initiatives, enhancing donor registration processes and supporting large-scale community drives.
- Organized and executed blood donation camps and stem cell donor registration drives, contributing to the registration of 1000+ potential donors.

PROJECTS

Blood Donor IVR Caller System **Github Link**

- Built a web-based IVR system to connect hospitals with blood donors using Twilio for automated calls and response tracking. Designed a secure admin panel to manage requests and implemented donor registration with filtering and call priority logic.
- Tools: Flask, Supabase, Twilio, HTML/CSS, JavaScript.

Luminara – AI-Powered Exoplanet Detection Platform **Github Link**

- Developed a PyTorch CNN pretrained on Kepler data with calibrated probability estimates, saliency maps, and region-specific confidence scoring, improving interpretability of exoplanet detection across >50k stellar light curves.
- Built an end-to-end pipeline (stellar data retrieval, preprocessing with MAD, visualization dashboard) enabling interactive flux–time plots with overlays and confidence metrics for accessible astrophysical analysis.

Predicting Optimal Piezoelectric Compounds Using Machine Learning Models ***(Under Review)***

- Applied 8+ machine learning models to a curated dataset of 75+ materials to identify optimal piezoelectric candidates.
- Achieved high prediction accuracy (RMSE ≈ 0.89) using Random Forest; shortlisted top-performing compound for CMOS-compatible applications.

CERTIFICATES

- Introduction to Google SEO, Coursera by University of California, Davis
- Career Essentials in Sustainable Tech, LinkedIn by Microsoft and LinkedIn
- Machine Learning for All, Coursera by University of London

TECHNICAL SKILLS

- Programming Languages: C, C++, Python, Javascript
- Frameworks: Flask, Pytorch, OpenCV, GitHub
- Databases: MySQL, Supabase
- APIs/Services: Twilio
- Deployment: Render, Railway