

EDUCATIONAL QUALIFICATIONS

Year	Qualification	Institute	Performance
2021-2025	B.Tech - Mechanical Engineering Minor – English Literature	Indian Institute of Technology Kanpur	8.0/10.0
2021	Class XII, Maharashtra State Board	Pace Junior Science College, Nerul	95.2%
2019	Class X, CBSE Board	D.A.V Public School, Nerul	94.0%

ACHIEVEMENTS

- Secured **All India Rank 2666** in JEE Advanced 2021 and **All India Rank 5044** in JEE Mains 2021 amongst **9.2 lakh candidates**2021
- Secured **All India Rank 102** in All India Open Mathematics Scholarship Examination by IPM among **50K+ candidates**2020
- Received the **Academic Excellence Award** for exceptional academic performance in the **2020-21** academic session2021

WORK EXPERIENCE

Product Development Internship | Medantrik (MedTech Start-Up)Jun'24-Aug'24

Received Pre-Placement Offer (PPO) for exceptional performance

Objective	Develop algorithm for portable lung health device , cost-effective spirometry test and lung exercises(₹6K vs. ₹2K/hospital test)
Approach	Calibrated device to map RPM to breath flow rate using prototype at National Wind Tunnel IITK , informed 5+research papers Built a hospital prototype and interface, collecting 10+ datapoints from 200+ patients , boosting algorithm accuracy by 12% Integrated hospital data (SQL Server) with GLI metrics, applying RandomForest to predict ideal lung health parameters
Impact	Co-invented patent-pending device; projected sales of ₹30cr revenue (50K units) by Apr, launch expected; Sept (Delhi-NCR) Generated lung report (19 parameters+4 graphs) via proprietary algo, classifying lung health into 4 categories (96% accuracy)

Product Management Internship | Foruppo (Autonomus Start-Up EcoSystem)May'24-Jun'24

Objective	Develop innovative products like 'Wizoon' and 'Urrban Tailor'; deliver impactful solutions through strategic planning
Impact	Co-creator of 'Wizoon', built India's first community-led holistic education startup and set-up pre-launch activities Created Value Proposition, Customer Segmentation, GTM strategy of 'Wizoon' ensuring customer acquisition and retention Launched 'Urrban Tailor,' a SaaS platform , on Product Hunt , leading an 8-member team from product ideation to execution

KEY PROJECT

Yoga Pose Prediction and Feedback Generation | Dr. Tushar Sandhan, EE, IIT Kanpur📄Jan'24-May'24

Objective	Enhance self-guided yoga practice with a deep learning model , classifying yoga asanas and providing real-time feedback
Strategy	Engineered hybrid CNN-LSTM model capturing spatial and temporal features, trained on 88 videos from diverse datasets Utilized OpenCV for video processing, MediaPipe for pose landmark extraction, Keras with TensorFlow for model training Conducted angular vector analyses to compare user poses with ideal poses, and implemented a feedback mechanism
Result	Reached 99.05% accuracy, boosted to 99.66% with polling, classifying videos into 6 asanas and providing effective feedback

Forecasting using time-series Analysis | Stamatics, IIT Kanpur📄May'23-Jul'23

Objective	Develop and compare predictive models for air quality and stock prices using time-series analysis to optimize accuracy
Strategy	Applied ADF, ACF test, Box-Cox transformation for the stationarity, normality, homoscedasticity on 7+time series datasets Decomposed a time-series into its trend, seasonality, cyclicity using HP filter and tested stationarity using ADF statistical test Conducted statistical normality tests and utilized ACF and PACF analysis to determine order of AR and MA models
Result	Achieved a MAPE of 0.0153 and 98.5% accuracy in predicting Apple INC. stock prices using Auto ARIMA on 1405 observations Reduces prediction errors with ARIMA, SARIMAX models , achieving 97.1% accuracy in Beijing air quality forecasting

Introduction to Machine Learning (Course Projects) | Dr. Purushottam Kar, CSE, IIT KanpurJan'24 – May'24

XORRO	Derived a linear mathematical simplification modeling a XORRO PUF with 8 multiplexers , using Khatri-Rao product Developed a linear ensemble model built from SVC and logistic regression methods, achieving highest accuracy of 99.33%
Hangman	Implemented information-theoretic algorithms greedily maximizing the number of nodes, resulting in entropy reduction Trained a 100% accurate decision tree model on a dictionary with 6K+ data points , effectively simulating Hangman gameplay
Sensor	Developed a ridge linear model calibrating the voltages recorded by the ozone and nitrogen dioxide sensors accurately Reduced the MAE by using Kernel Ridge non-linear model with an adaptive learning rate & ϵ -insensitive loss function

Chat With Multiple-PDFs (Self Project)📄Aug'24

Objective	Develop contextually responsive chatbot to answer user queries, extracting and processing text from multiple PDFs
Strategy	Leveraged PyPDF2, LangChain, FAISS for text extraction, embedding, and retrieval, with OpenAI and Hugging Face models Designed an interface with Streamlit to support file uploads, handle user queries, and responses generated by the chatbot
Result	Achieved a 90% accuracy rate in query responses across PDF document types, processing up to 200 pages per document

LEADERSHIP EXPERIENCE

Coordinator, Dance Club (KOS) | IIT KanpurMay'23 – May'24

Felicitated with Certificate of Appreciation by the **Director, IIT-K** for recognition as Coordinator, Dance Club, IIT Kanpur

Leadership	Directed a 3-tier team of 50+ in 4 national-level competitions and coordinated 7 campus events with 2K+ average football Managed club finances of INR 1.2L and generated over INR 30K in additional revenue by organizing diverse workshops
Impact	Achieved a historic milestone by becoming the 1st dance team from any IIT to qualify for Indian HipHop Championship finals Garnered over 12 million+ views and amassed an impressive 40K+ subscriber base on the official Dance Club, IITK YT channel Organized a 7-day Summer Workshop by tier-1 artist separately in two shifts for 50+ beginners and 30+ team member

TECHNICAL SKILLS

- Programming Languages:** C++, Python, HTML, CSS, LaTeX, SQL
- Data Science & ML:** TensorFlow, Keras, NumPy, Pandas, Matplotlib, Scikit-learn, Statsmodels, OpenCV, LangChain, Streamlit
- Software & Utilities:** Illustrator, Photoshop, LightRoom, Excel, Canva

EXTRA-CURRICULAR ACTIVITIES

Performing Arts	Inter-IIT Cult Meet	3 rd position in group dance category	3 rd position in dance battle category	Inter-IIT	2023
	Antaragni, IITK	1 st position in group dance category	1 st position in dance drama category	National	2023
Social Work	Tutored 20 underprivileged children in Math and English of class 5th and 6th through Prayas, IITK Mobilized funds to support children's education at Muskurahat Foundation (NGO) earning a merit certificate				2022

