Kaustav Dasgupta kaustavd21@iitk.ac.in +91 9892139344 in Kaustav Dasgupta **EDUCATIONAL QUALIFICATIONS** Qualification Institute **Performance** 2021-2025 B.Tech - Mechanical Engineering | Minor – Eng 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 session 2021 WORK EXPERIENCE **Product Development Internship** | *Medantrik (MedTech Start-Up)* May'24-Jul'24 Received Pre-Placement Offer (PPO) for exceptional performance Objective • Develop algorithm for portable lung health device, a cost-effective personalized appliance for managing respiratory diseases • Calibrated device to map RPM to breath flow rate using prototype at National Wind Tunnel IITK, informed 5+research papers Approach • Boosted algorithm accuracy by 12% by building hospital prototype and interface, collecting 10+ datapoints from 200+ patients • Spearheaded end-to-end design of health camps with 1K+ footfall and represented team in ASEAN-India ScaleHub 2024, Bali Co-invented patent-pending device; projected sales of ₹30cr revenue (50K units) by Apr, launch expected by Sept (Delhi-NCR) **Impact** • Generated lung report (19 parameters+4 graphs) via proprietary algo, classifying lung health into 4 categories (96% accuracy) **Product Management Internship** | Foruppo (Autonomous Start-Up EcoSystem) May'24-Jul'24 • Pioneered India's 1st community-led holistic education startup to empower young adults with comprehensive life education Product 1: Wizoona (Co-creator) Crafted value proposition, customer segmentation, GTM strategy of 'Wizoona' ensuring customer acquisition and retention • Spearheaded 8-member team to develop Urrban Tailor, a personalized outfit selector, from concept to Product Hunt launch Product 2: **Urrban Tailor** • Developed a dynamic selection framework across 5 dimensions on WordPress, enhancing user interaction and personalization **KEY PROJECT** Yoga Pose Prediction and Feedback Generation | Dr. Tushar Sandhan | EE, IIT Kanpur 💽 Jan'24-Mav'24 Objective Enhance self-guided yoga practice with a deep learning model, classifying yoga asanas and providing real-time feedback • 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 Strategy · 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 Objective • Develop and compare predictive models for air quality and stock prices using time-series analysis to optimize accuracy • Applied ADF, ACF test, Box-Cox transformation for the stationarity, normality, homoscedasticity on 7+time series datasets Strategy 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 JP Morgan Chase Co.— Investment Banking | Forage Jul'24 • Analysed and provided targets for Mergers & Acquisition targets a US-based Brewing firm for expansion over a new market Key Highlights Performed Data Analysis with a summary of target based on financial statements, bidding process, estimated valuation • Formulated a DCF Model to finalize the offer price to value a target based on financial forecasts and assumptions provided • Revised the Model for a new bid due to change in circumstances and compared it with competitive bidder for the final price 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 Kanpur May'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 footfall Managed club finances of INR 1.2L and generated over INR 30K in additional revenue by organizing diverse workshops **Initiatives** • Organized a 7-day Summer Workshop by tier-1 artist separately in two shifts for 50+ beginners and 30+ team members Collaborated with Antaragni on a climate awareness campaign, reaching an audience of 1K+ in Kanpur's biggest mall **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 **TECHNICAL SKILLS** • Programming Languages: C++, Python, HTML, CSS, LaTeX, SQL • Data Science & ML: TensorFlow, Keras, NumPy, Pandas, Matplotlib, • Software & Utilities: Illustrator, Photoshop, LightRoom, Excel, Canva Scikit-learn, Statsmodels, OpenCV, LangChain, Streamlit

EXTRA-CURRICULAR ACTIVITIES								
_	Performing Arts	Inter-IIT Cult Meet 5.0	• 3 rd position in group dance category and 3 rd position in dance battle among 20+ teams					
		Antaragni, IITK	• 1 st position in group dance category and 1 st position in dance battle among 30+ teams	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						