Kaustav Dasgupta 🔀 kaustavd21@iitk.ac.in 🔽 +91 9892139344 in Kaustav Dasgupta **EDUCATIONAL QUALIFICATIONS** Year Qualification Institute **Performance** Indian Institute of Technology Kanpur 2021-2025 B.Tech - Mechanical Engineering | Minor – English Literature 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% **SCHOLASTIC 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 Intern** | *Medantrik (MedTech Start-Up)* Jun'24-Aug'24 Received Pre-Placement Offer (PPO) for exceptional performance • Engineer cost-effective portable lung diagnosis device, driving technical solutions with CTO for successful market launch • Calibrated device to map RPM to breath flow rate using prototype at National Wind Tunnel IITK; leveraged 5+research papers Execution 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 Intern** | Foruppo (Autonomous Start-Up Ecosystem) • 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 Product 2: Spearheaded 8-member team to develop Urrban Tailor, a personalized outfit selector, from concept to Product Hunt launch **Urrban Tailor** • Developed a dynamic selection framework across 5 dimensions on WordPress, enhancing user interaction and personalization **KEY PROJECTS** Yoga Asana 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 • Engineered hybrid CNN-LSTM model capturing spatial and temporal features, trained on 88 videos from diverse datasets Strategy 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 Classified videos into 6 asanas, achieving a framewise accuracy of 99.05%, with polling improving accuracy to 99.66% Outcome Enabled precise feedback by demonstrating the closest intermediate poses from input videos; comparing them to ideal poses Brand Repositioning Strategy | Prof. Amit Shukla | IME, IIT Kanpur | Course Project & May'24-Jul'24 Objective • Redefine and strengthen boAt's brand positioning to better align with emerging markets and evolving consumer preferences • Analysed boAt's value chain; identified 5 key levers to drive business growth amidst 3 rivals dominating 50% market share Strateav Generated insights with 4P, PESTEL, and SWOT framework and prioritised them using RICE and MoSCoW frameworks • Crafted strategic video advertisement that elevated brand perception, validated through insights from 80+ survey responses Outcome • Formulated a brand extension concept for boAt, launching a musical instrument product line to target adjacent markets Introduction to Machine Learning | Dr. Purushottam Kar | CSE, IIT Kanpur | Course Project 😯 Jan'24 – May'24 • Derived a linear mathematical simplification modeling a XORRO PUF with 8 multiplexers, using Khatri-Rao product **XORRO** Developed a linear ensemble model built from SVC and logistic regression methods, achieving highest accuracy of 99.33% Implemented information-theoretic algorithms greedily maximizing the number of nodes, resulting in entropy reduction Hangman Trained a 100% accurate decision tree model on a dictionary with 6K+ data points, effectively simulating Hangman gameplay • Developed a ridge linear model calibrating the voltages recorded by the ozone and nitrogen dioxide sensors accurately Sensor • Reduced the MAE by using **Kernel Ridge non-linear model** with an adaptive learning rate & ε -insensitive loss function 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 • Directed a 3-tier team of 50+ in 4 national-level competitions and coordinated 7 campus events with 2K+ average footfall Leadership • Managed club finances of INR 1.2L and generated over INR 30K in additional revenue by organizing diverse workshops • Organized a 7-day Summer Workshop series by tier-1 artist separately in two shifts for 50+ beginners and 30+ team members Initiatives Crafted a dynamic 10-minute showcase at the PG Orientation that successfully drew 1.8x more PG students in the club Achieved a historic milestone by becoming the 1st dance team from any IIT to qualify for Indian HipHop Championship finals **Impact** • Garnered over 12 million+ views and amassed an impressive 40K+ subscriber base on the official Dance Club, IITK YT channel **EXTRA-CURRICULAR ACTIVITIES** Competition **Achievements** Year Category Level Led the contingent which secured, Inter-IIT Cultural Meet • 3rd position in group dance category at IIT Madras Inter-IIT 2023 3rd position in dance battle category at IIT Madras Performing Arts: 2023 2nd position out of 30+ teams in group dance category

• 1st position out of 30+ teams in group dance category

• 3rd position out of 10+ teams in dance battle category

• 3rd position out of 30+ teams in group dance category

Mobilized funds to support children's education at Muskurahat Foundation (NGO) earning a merit certificate

• Conducted Flashmob with sapling distribution on World Environment Day to spread environmental awareness

• Tutored 20 underprivileged children in Math and English of class 5th and 6th through Prayas, IIT Kanpur

National

National

2022

2022

2022

2023

Dance

Social Work

Antaragni, IIT Kanpur

Thomso, IIT Roorkee