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| **Kaustav Dasgupta** | | | | kaustavd21@iitk.ac.in| +91 9892139344| Kaustav Dasgupta | | | | |
| **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%** | |
| **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* | | | | |  | | | |
| *Objective* | * Engineer cost-effective **portable lung diagnosis device**, driving technical solutions with **CTO** for successful market launch | | | | | | | |
| *Execution* | * Calibrated device to map RPM to breath flow rate using prototype at **National Wind Tunnel IITK**; leveraged **5+research papers** * Boosted algorithm accuracy by **12%** by building hospital prototype and interface, collecing **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** | | | | | | | |
| *Impact* | * Co-invented patent-pending device; projected sales of **₹30cr revenue (50K units)** by Apr, launch expected by **Sept** (Delhi-NCR) * Generated lung report **(19 parameters**+**4 graphs)** via proprietary algo, classifying lung health into **4 categories** **(96% accuracy)** | | | | | | | |
| **Product Management Intern** |*Foruppo (Autonomus Start-Up EcoSystem) May’24-Jun’24* | | | | | | | | |
| *Product 1:*  ***Wizoona******(Co-creator****)* | * Pioneered **India's 1st community-led holistic education startup** to empower young adults with comprehensive life education * Crafted **value proposition, customer segmentation, GTM strategy** of ‘Wizoona’ ensuring customer acquisition and retention | | | | | | | |
| *Product 2:*  ***Urrban Tailor*** | * Spearheaded **8-member team** to develop Urrban Tailor, a personalized outfit selector, from concept to **Product Hunt launch** * 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** | | | | | | | |
| *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 | | | | | | | |
| *Outcome* | * Classified videos into **6 asanas**, achieving a framewise accuracy of **99.05%**, with polling improving accuracy to **99.66%** * 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 | | | | | | | |
| *Strategy* | * Analyzed boAt's value chain; identified **5 key levers** to drive business growth amidst **3 rivals** dominating **50% market share** * Generated insights with **4P, PESTEL,** **and SWOT** framework and prioritised them using **RICE** and **MoSCoW** frameworks | | | | | | | |
| *Outcome* | * Crafted strategic **video advertisement** that elevated brand perception, validated through insights from **80+ survey responses** * 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* | | | | | | | | |
| *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 | | | | | | | |
| **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** series by tier-1 artist separately in two shifts for **50+ beginners** and **30+ team members** * Crafted a dynamic **10-minute showcase** at the PG Orientation that successfully drew **1.8x** **more** PG students in the club | | | | | | | |
| *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** | | | | | | | |
| **EXTRA-CURRICULAR ACTIVITIES** | | | | | | | | |
| **Category** | **Competition** | | **Achievements** | | | **Level** | | **Year** |
| *Performing Arts:*  *Dance* | **Inter-IIT Cultural Meet** | | *Led the contingent which secured,*   * **3rd position** in group dance category at IIT Madras * **3rd position** in dance battle category at IIT Madras | | | **Inter-IIT** | | *2023* |
| **Antaragni, IIT Kanpur** | | * **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 | | | **National** | | *2023* |
| *2022* |
| **Thomso, IIT Roorkee** | | * **3rd position** out of **30+** teams in group dance category | | | **National** | | *2022* |
| *Social Work* | * Mobilized funds to support children's education at **Muskurahat Foundation (NGO)** earning a **merit certificate** * Tutored **20 underprivileged children** in Math and English of class 5th and 6th through **Prayas, IIT Kanpur** * Conducted **Flashmob** with sapling distribution on **World Environment Day** to spread environmental awareness | | | | | | | *2022* |
| *2023* |