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**B.Tech.**  
**Gender: Male**  
**DOB: 01-06-1999**

Examination	University	Institute	Year
Graduation	IIT Bombay	IIT Bombay	2021

## DATA SCIENCE WORK EXPERIENCE

**Deep Learning to Optimize Leaf Tobacco Procurement Costs | ITC | Awarded LOR** [May - July '20]

Approach	<ul style="list-style-type: none"><li>Trained and optimized a classifier <b>Neural Network</b> to predict data-based <b>interventions</b></li><li><b>Collaborated</b> with stakeholders to outline <b>factors</b> affecting tobacco price; suggested <b>prioritization</b> mechanisms for grades by <b>analyzing past</b> buying and offering <b>patterns</b> in auctioning markets</li><li>Designed <b>efficient dashboard</b> with <b>competition</b> data analysis for assistance in <b>decision making</b></li></ul>
Results	<ul style="list-style-type: none"><li>Achieved <b>85% accuracy</b> in intervention-prediction; <b>reduced</b> procurement costs by estimated <b>10%</b></li></ul>

**Streamlining Data Handling | Aggrego (Joulon) - Dubai, UAE | Awarded LOR** [May - July '19]

Approach	<ul style="list-style-type: none"><li>Developed <b>applications</b> for Logistics Data in DelugeScript; Preventive Maintenance in MS Powerapps</li><li>Analysed <b>Logistics</b> and <b>Transport</b> Data and prepared <b>efficient dashboards</b> using MS Excel</li></ul>
Results	<ul style="list-style-type: none"><li>Deployed applications for <b>Company-Wide</b> use (<b>200+</b> people); made data handling more <b>organized</b></li></ul>

## KEY TECHNICAL PROJECTS

**Covid Detection using Chest X-Ray (Bachelor Thesis Project) | Prof. Amit Sethi** [Aug '20 - Present]

- Training and optimizing a **GAN** for **augmentation** of Covid X-Ray (IEEE-8023) dataset in **PyTorch**
- Exploring **Transfer Learning** to test accuracy of **GoogleNet**, **ResNet**, **AlexNet** on augmented dataset; **designing** and training own **CNN** classifier architecture based on insights to **increase** detection accuracy

**Smart Water Heater (IOT) (Electronic Design Lab Course Project) | Prof. Promod Murali** [Jan '20 - Apr '20]

- Interfaced DSB1820 temperature sensor with ESP-32 **Wifi-module** using **Arduino**; designed **water-proof** enclosure
- Designed a **rechargeable long-lasting** battery module using LT-5641 IC to power the system when not plugged in
- Seamlessly **transmitted** the temperature readings over Internet to a mobile application employing **MQTT protocol**

## SCHOLASTIC ACHIEVEMENTS

- JEE-Main **AIR 75** | JEE-Advanced **AIR 243** | KVPY **AIR 282** | NTSE Scholar (**State Rank 4**)
- Pursuing a Minor in **Computer Science & Engineering** (ML, Data Structures, Computer Networks & Security)
- Competitive Programming**: Solved **500+** algorithmic problems, highest rated **1765** - Codeforces, **1952** - Codechef
- Key Courses** : Data Analysis and Interpretation, Advanced Machine Learning, Game Theory, Random Processes
- Key Technical Skills**: C/C++, Python (**Highly proficient**); PyTorch, Scikit-Learn, JavaScript, MATLAB

## LEADERSHIP EXPERIENCE

**Teaching Assistant: Quantum Physics and its Applications** [July - Nov '19 , July - Nov '18]

- Responsible for conducting weekly **tutorial sessions** for **50+** students; initiated **interactive two-way learning**
- Held a **TSC** (Tutorial Service Centre) session for **Quantum Physics** for **150+** students; assisted in **exam-checking**

**Coordinator, Hospitality and Public Relations: Mood Indigo 2018** [July - Nov '18]

- Ideated within a team of 30 members to manage the hospitality demands of **143,000+** **visitors** over **4 days**
- Handled the **cross-publicity association** with PECFEST; expected to increase reach of Mood Indigo by **5%**

## MISCELLANEOUS

HONDA Y-E-S Award	<ul style="list-style-type: none"><li>Identified as a future leader in Science and Technology; amongst <b>14</b> selected from <b>500</b> participants</li><li>Awarded fully funded <b>research internship</b> in <b>Japan</b> in Summers 2021 (10000 USD) [2020]</li></ul>
Mercedes Benz Digital Challenge	<ul style="list-style-type: none"><li>Winner amongst <b>350+</b> applicants from all over India for presenting a <b>Computer Vision</b> based non-invasive <b>Physiological Monitoring</b> (via camera) solution to reduce road accidents [2020]</li><li>Awarded funded trip to <b>showcase</b> the solution at <b>4YFN Startup Conference</b> (MWC) in Spain</li></ul>
Cricket	<ul style="list-style-type: none"><li><b>Captained</b> the <b>winning</b> team comprising of <b>16</b> players in <b>Freshmen Cricket League</b> [2018]</li></ul>
Others	<ul style="list-style-type: none"><li><b>Leading</b> a team of <b>20+</b> students in the making of a <b>nationwide MOOC</b> on NPTEL [Ongoing]</li><li><b>Spearheaded</b> a team of <b>5</b>; represented Chandigarh in National Children Science Congress [2015]</li></ul>