	Uddhav Aggarwal	170070054
	Electrical Engineering	**B.Tech.**
	Indian Institute of Technology, Bombay	**Gender: Male**
		DOB: 01-06-1999

Examination	University	Institute	Year
Graduation	IIT Bombay	IIT Bombay	2021

WORK EXPERIENCE

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

Approach	• Trained and optimized a classifier **Neural Network** to predict data-based **interventions** • **Collaborated** with stakeholders to outline **factors** affecting tobacco price; suggested **prioritization** mechanisms for grades by **analyzing past** buying and offering **patterns** in auctioning markets • Designed **efficient dashboard** with **competition** data analysis for assistance in **decision making**
Results	• Achieved **85% accuracy** in intervention-prediction; **reduced** procurement costs by estimated **10%**

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

Approach	• Developed **applications** for Logistics Data in DelugeScript; Preventive Maintenance in MS Powerapps • Analysed **Logistics** and **Transport** Data and prepared **efficient dashboards** using MS Excel
Results	• Deployed applications for **Company-Wide** use (**200+** people); made data handling more **organized**

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	• Identified as a future leader in Science and Technology; amongst **14** selected from **500** participants • Awarded fully funded **research internship** in **Japan** in Summers 2021 (10000 USD) [2020]
Mercedes Benz Digital Challenge	• Winner amongst **350+** applicants from all over India for presenting a **Computer Vision** based non-invasive **Physiological Monitoring** (via camera) solution to reduce road accidents [2020] • Awarded funded trip to **showcase** the solution at **4YFN Startup Conference** (MWC) in Spain
Cricket	• **Captained** the **winning** team comprising of **16** players in **Freshmen Cricket League** [2018]
Others	• **Leading** a team of **20+** students in the making of a **nationwide MOOC** on NPTEL [Ongoing] • **Spearheaded** a team of **5**; represented Chandigarh in National Children Science Congress [2015]

Scholastic achievements and extracurricular activities are not verified by the Placement Cell