# ANKUSH KUMAR SINGH 183190007

**Industrial Engineering & Operations Research M.Tech. Indian Institute of Technology Bombay Male**

# DOB: 20/08/1994

Undergraduate Specialization : Mechanical Engineering

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| **Examination** | **University** | **Institute** | **Year** | **CPI / %** |
| Post Graduation | IIT Bombay | IIT Bombay | 2020 | 8.03 |

Dr A P J Abdul Kalam Technical University, U.P.

Graduation

Ajay Kumar Garg Engineering College 2016 71.64

* Secured **99.65 percentile** in GATE-2017, Mechanical Engineering among 190648 students

**KEY PROJECT AND SEMINAR**

**SCHOLASTIC ACHIEVEMENTS**

**PREDICTION OF MOVIE REVENUE USING DATA** (Master’s Thesis Project)

**Guide**: Prof.P. Balamurugan Programming Language: **Python** [June’19-Present] Made **web scrappers** to collect data from websites

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Implementing classification techniques like logistic regression, **decision tree**, random forest, **support vector machine(SVM), gradient boosting** and regression techniques to predict movie revenue

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* + Future Work: **Sentiments Analysis** of social media data using **Natural Language Processing** techniques

**OPTIMIZATION IN LINER SHIPPING** (M.Tech Seminar)

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**Guide**: Prof. Ashutosh Mahajan [Feb’19-April’19]

Studied liner shipping problems like **container routing**, liner shipping network design, **speed optimization**

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and bunker purchasing

Studied **Integer Programming and Mixed Integer Linear Programming** techniques for solving liner shipping problems

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# ARTGAN: ARTWORK SYNTHESIS WITH CONDITIONAL CATEGORICAL GANs

**COURSE PROJECTS**

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**Course:Deep Learning**- Theory and Practice **Guide:** Prof. P. Balamurugan [Aug’19 -Present] Implementing an extension to **Generative Adversarial Networks (GANs)**, namely ArtGAN to synthetically

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generate more challenging and complex images such as artwork that have abstract characteristics

# PREDICTION OF BREAST CANCER USING MACHINE LEARNING

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**Course**: Machine learning **Guide:** Prof. Biplap Banerjee [Apr’19-May’19] Implemented logistic regression,SVM, decision tree, & multi-layer perceptron to predict cancer & compared their accuracy using **confusion matrix & ROC**(Receiver Operating Characteristics) curves

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# SUPPLY CHAIN DESIGN FOR OILSEED PROCESSING PLANTS

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**Course**: Quantitative Models in Supply Chain Management **Guide:** Prof. N.Rangaraj [Aug’18-sept’18] Developed an Integer programming model and solve it using AMPL, to decide a number of processing plants, their locations, technology and type of extraction, from given alternatives to **minimize the total cost**

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**TECHNICAL SKILLS**

* **PROGRAMMING LANGUAGES**: Python, R, Scilab **SOFTWARES**: MS Excel,Latex, Vensim, Minitab,Autocad
* **OPTIMIZATION SOLVERS/PACKAGES**: AMPL, Gurobi, Pandas, scikit learn

**RELEVANT COURSES**

* **Optimization** Techniques
* Introduction to **Stochastic** Models
* Machine Learning
* Decision Analysis and Game Theory
* **Statistics** for Management Research (Ongoing)
* **Deep Learning**- Theory and Practice (Ongoing)

**GENERAL SECRETARY, IEORSA, IIT BOMBAY** [May’19 - Present]

**POSITIONS OF RESPONSIBILITY**

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Responsible for initiating, planning and organizing all events at department level with the help of fellow council members

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* + Represents 110+ students at institute level and address their grievances at both department and institute level
* **CLASS REPRESENTATIVE,M.Tech, IEOR (2018-20 batch), IIT Bombay** [Aug’18 - Present]
  + Acting as communicating interface between faculty and students
  + Organized group discussions and doubt clearing sessions for classmates

**EXTRA-CURRICULAR ACTIVITIES**

* Won **Gold medal** in **Shotput** in PG-General Championship, IIT Bombay [April’19]
* Won **Silver medal** in **Tug of War** in PG-General Championship, IIT Bombay [March’19]
* Lead logistics team in two days long event **“IEOR DAY”** [March’19]