# Jatin Jain

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## Education

**Indian Institute of Technology (IIT) Delhi, India** — *July 2017 - May 2021*
*B.Tech in Electrical Engineering (Power and Automation)* — CGPA - 8.716

**Ramakrishna Vidya Mandir, Gwalior** — *April 2015 - March 2017*
*12th, Central Board of Secondary Education* — 90.4%

**Gwalior Glory High School, Gwalior** — *Till March 2015*
*10th, Central Board of Secondary Education* — CGPA - 10

## Scholastic Achievements

- **JEE Advanced** : Secured **All India Rank 632** among 0.25 million students *(2017)*
- **NSEP** : Among **top 1%** in National Standard Examination in Physics, conducted by IAPT *(2017)*
- **VITEE** : Secured **All India Rank 20** in VIT Entrance Examination among 0.22 million students *(2017)*

## Work Experience

**Member Technical Staff** | **Oracle, India** — *July 2021 – August 2022*
*Worked within Oracle Cloud Infrastructure's AI services division for forecasting service team*
- Built and integrated **microservices**-based control plane and data plane for **forecasting** as **AI service** on **Oracle Cloud**
- Built easy to use **UI** for service for seamless call and output visualization resulting in **enhanced customer engagement**
- Implemented pipeline for pre-processing of the input data using **spark flow**-based jobs for validation, anomaly detection etc
- Developed **cheap** optimization engine utilizing **open source** solvers to establish feasibility of new **optimization as service**

**NCDEX** | *Data Science Intern* — *May 2021 - June 2021*
- Developed the system taking **market trades** and the clients trade data to extract out key technical features for each client
- Built the ML model **clustering** traders based on these features and **raising alerts** in case of their sudden behavior change

**Oracle, India** | *Machine Learning and Backend Developer Intern* — *May 2020 - June 2020*
*Built **Covid Scholar**, a tool to quickly scan and search research papers, drawing non obvious insights and connections*
- Built the complete pipeline doing the COVID relevant summarizing, **keyphrase extraction**, **tagging** and **classification**
- Using **BERT, LSTM** designed **SequencetoSequence** models for generating abstractive summary of large publications
- Designed easy to use intuitive UI, automating whole process from extraction to **filtered searching** to **inference** of data

**Konscience, New Delhi** | *Machine Learning and Backend Developer Intern* — *May, 2019 - July, 2019*
*Developed **political analysis** tool monitoring real time news and social media activities targeting **election campaigning***
- Used **selenium** and **scrapy** for **scraping** the social political information from the online sources like facebook, twitter etc
- Built **Topic Modelling** system, identifying topics using characteristic keyword's term frequency in tokenized form of data
- Used **Non-Negative Matrix Factorization** model for **Auto Tagging**, tuned the parameters by training on 20K+ articles

## Key Academic Projects

**Machine Learning Projects** | *Prof. Sumeet Agarwal and Prathosh AP* — *September 2019 - October 2019*
- Built a **multi layer neural network** from scratch for the classification problem with support of flexible network structure
- Trained **SVM** for binary and multi class classification using LIBSVM, improved the performance by using **PCA** before it
- Implemented basic **linear regression** and **K-Means algorithms** for their respective regression and clustering problems

**Single Cycle Processor** | *Prof. Smruti Ranjan Sarangi* — *September 2019 - October 2019*
- Implemented the basic single cycle processor design providing implementaion of the entire **simpleRisc instruction set**
- Successfully simulated it in the **logisim** software by processing different simple and complex executable programs on it

**Basic Search Engine** | *Prof. Amitabh Bagchi* — *September 2018 - October 2018*
- Implemented an **inverted index** based **Ranking Algorithm** to achieve sorted display of webpages in response of queries
- Employed **HashMapping** and **AVL trees** for faster results, improving the search time complexity from **O(n) to O(logn)**

**Mobile Phone Tracking System** | *Prof. Amitabh Bagchi* — *August 2018 - September 2018*
- Developed an elaborate technological framework behind **Mobile Phone Calls Networking** using the trees and hash sets
- Built a **hierarchical call routing structure** consisting of one central server with multiple exchanges and mobile phones

## Technical Skills And Coursework

**Programming Languages**: Java, Python, Scala, C/C++, Typescript, ARM, Matlab, MathProg
**Software Tools and Libraries**: Spring, Maven, Spark, PyTorch, Tensorflow, Keras, Flask, Reactjs, Nodejs
**Courses Done**: Data Structures And Algorithms, Intro. To Machine Learning, Computer Architecture, Intro. To Computer Science, Linear Algebra & Differential Equa., Calculus, Probability & Stochastic Pro., Optimization Methods and Appl.

## Extra Curricular Activity

**Maintenance Secretary**: Selected unanimously among 450+ students to solve maintenance related problems and work for betterment of the hostel

**Social Service**: Taught underprivileged students and mentored extra curricular activities for the NGO like Aahvan - Ek Pehel