

## Academic Qualifications

Year	Degree/Certificate	Institute	CPI/%
2018-present	M.Tech(Computer Science & Engineering)	Indian Institute of Technology, Kanpur	8.86/10
2012-2016	B.Tech(Mechanical Engineering)	MRCE, Faridabad(MDU, Rohtak)	70.1%
2012	CBSE(XII)	D A V Public School	81.16%
2010	CBSE(X)	D A V Public School	8.2/10

## Scholastic Achievements

- 2018 Secured **99.52** percentile in Graduate Aptitude Test in Engineering (GATE)
- 2018 Received **Scholarship** for Google India Challenge Scholarship for the Android Basics track.
- 2011 Secured **144 state rank** in Math Olympiad(International Olympiad of Mathematics'11)

## Work Experience

- **Tata Consultancy Services, Mumbai IN** (Jan'17–July'18)  
**Designation: Assistant System Engineer**
  - Automated the price update functionality of products in Lotus Notes, which saved around 30 hours of work per update.
  - Involved in the development of new functionality which allows offline order entry by Customer Sales Representative in IBM WebSphere Commerce, which improved customer satisfaction.

## Thesis and Projects

- **Asynchronous Consensus Protocol (M.Tech Thesis)** (May'18–Ongoing)  
**Mentor: Prof Sandeep K. Shukla**
  - **Aim:** To Implement Asynchronous Consensus Protocol in Hyperledger Fabric to increase the robustness of Blockchain.
  - Working on designing and implementing the algorithm of Asynchronous Consensus Protocol for Hyperledger Fabric.
- **Certificate Storage and Verification System** (Mar'19–Apr'19)  
**Mentor: Prof Sandeep K. Shukla**, Tech Used: Hyperledger Composer, IPFS, Node Js, RESTful API
  - Implemented blockchain solution that allows users to publish, download, and verify the authenticity of documents.
  - Developed a feature using smart contracts logic which prevents duplicate use of certificates by a user.
- **Loc Restro(Location-based Food Ordering Application)** (Sept'18–Nov'18)  
**Mentor: Prof. T.V. Prabhakar**, Tech Used: Ionic Framework, Mongo DB, Node Js
  - Developed back-end of the hybrid app that based on user's location shows restaurants and allow a user to place an order.
  - Designed and implemented back-end of the system to be scalable, using Geo-location-based Load Balancing.
- **Exploitation and Defence of Computer Systems** (Feb'19–Mar'19)  
**Mentor: Prof. Pramod Subramanyan**
  - **Securing ZooBar Server** Tech used: Python, gdb  
 Exploited vulnerabilities using control hijacking techniques like buffer overflow and format string attacks. Fixed security bugs in web server, implemented privilege separation server-side, sand-boxing of executable profiles in the okws server.
  - **Encrypted Storage System**, Tech Used: Golang  
 Designed and Developed a Key-Value store which ensured the integrity, confidentiality, and secure sharing of data.
- **Pocket ML (Machine Learning Model for Small Devices)** (Aug'19–Dec'19)  
**Mentor: Prof. Piyush Rai**, Tech used: Python, scikit-learn
  - Studied Pruning Random Forests for Prediction on a Budget by Feng Nan et al. and Benchmarked SVM's accuracy with different kernels (Linear, RBF, Polynomial) on various data set like IRIS, MNIST, USPS.

## Technical Skills

- **Programming Languages:** C/C++, Java, Go,
- **Tools and Technologies:** Linux Shell Utilities, Git, Javascript, Python, Android, MongoDB, MySQL, L<sup>A</sup>T<sub>E</sub>X

## Positions of Responsibility

- **Students' Senate Nominee, DPGC, IIT Kanpur** (Dec'18–present)
  - Solved termination cases of 4 students with CPI less than the required CPI in the 1st year at Academic Senate
- **Teaching Assistant, IIT Kanpur** (Aug'18–Dec'18, Aug'19–present)
  - Fundamentals of Computing, ESC 101: Duties involved helping students in hands-on problem-solving in C & grading.
  - Software Architecture, CS 654: Major duties involved creation and grading of quizzes and assignments

## Relevant Courses

- |   |                                 |                                 |
|---|---------------------------------|---------------------------------|
| o Analysis of Concurrent program        | o Topics in Distributed Systems | o Computer Systems Security     |
| o Introduction to Blockchain Technology | o Intro to Machine Learning     | o Topics in Internet Technology |

## Extra-Curricular Activities

- 2018 Secured **2nd position** among 32 students in Systems Research Boot Camp held at IIT Kanpur.
- 2015 Technical Team Member for Team AutoTregoon, Participated in Elite Karting, 2015 held in Bhopal, India
- 2013 and 2014 Trained around **50+ students** overhauling of Maruti 800 engine, single cylinder engine, and carburetor