

# Abhinav Agarwal

IIT Kharagpur  
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## EDUCATION

- 2014–present **B.Tech in Electrical Engineering**, IIT Kharagpur.  
CGPA - 9.49 (on scale of 10)
- May 2014 **12th Grade**, CBSE, New Delhi.  
Aggregate - 95.4%
- May 2012 **10th Grade**, CBSE, New Delhi.  
GPA - 9.4 (on scale of 10)

## COURSEWORK

### Undergraduate.

Algorithms, Artificial Intelligence, Machine Learning, Data Analytics, Information Retrieval, Cryptography, Computer Architecture and Operating Systems, Intelligent Systems, Switching and Finite Automata.

### Online.

Database Management Systems

## EXPERIENCE

### Kharagpur Robosoccer Students' Group

- Feb 2015 **Artificial Intelligence Team Member.**
- present **Robocup3d Simulation League** KRSSG is first Indian team to qualify for Robocup3d simulation which was held at Germany(2016). KRSSG made an outstanding debut by qualifying all rounds and being undefeated by 3 teams in any match.  
Implemented team positioning, multi-agent pass, CMA-ES based walk optimization.  
**Code-O-Soccer** is a coding competition conducted by KRSSG.  
Implemented a windows batch script to automate the evaluation process.

### Goldman Sachs

- May 2017 **Internship**, Technology Division.
- July 2017 Implemented end-to-end system for throttling the database system.
- Pre Placement Offer**, Technology Division.  
Offered pre-placement offer in technology division at Bengaluru office.

### National Digital Library Project

- May 2016 **Internship.**
- July 2016 NDL is a flagship initiative of MHRD. I implemented spell check using aspell linux utility.

## Image Processing Winter Workshop

Dec 2014, **Participant**.  
Kharagpur Attended IEEE certified, Computer Vision workshop.

## Open Source Contributions

Dec 2015- **Contributor**, SymEngine .  
March 2016 SymEngine is a fast C++ symbolic manipulation library. I successfully merged 17 pull requests pushing total 56 commits and co-authored of the talk *SymEngine: A Fast Symbolic Manipulation Library* in Scipy (USA 2016).

## SKILLS

Language English, Hindi  
Programming C, C++, Python, Latex, Java  
Languages  
Concepts OOPS, STL, Multithreading, Data Structures & Algorithms, Regex  
Platforms Windows, Linux  
Tools Git, Bash, Batch scripting, Matlab, Apache Solr, Protobuf, OpenCV, Theano

## ACHIEVEMENTS

- Qualified for **ACM-ICPC** (2015) Amritapuri regionals.
- Secured rank in top 0.1% in JEE Mains 2014 (out of 1.3M students (approx))
- Secured rank in top 0.5% In JEE Advanced 2014 (out of 0.15M students (approx))
- Represented KRSSG in **Robocup** (Germany, 2016). The group made an outstanding debut by winning all matches against 1 team and drew multiple matches against 2 teams.
- Co-author of the talk *SymEngine: A Fast Symbolic Manipulation Library* in **Scipy** (USA, 2016).