

# Abhinav Agarwal

IIT Kharagpur  
✉ [abhinavagarwal@iitkgp.ac.in](mailto:abhinavagarwal@iitkgp.ac.in)  
[abhinavagarwal1996@gmail.com](mailto:abhinavagarwal1996@gmail.com)  
(+91) 7548916440

<https://www.linkedin.com/in/abhinav007>

## EDUCATION

- 2014–present **B.Tech in Electrical Engineering**, *IIT Kharagpur*.  
CGPA - 9.58 (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
- Information Retrieval
- Computer Architecture and Operating Systems

### Online.

- Database Management Systems

## EXPERIENCE

### Kharagpur Robosoccer Students' Group

- Feb 2015 **Artificial Intelligence Team Member**.  
–present, Kharagpur KRSSG is SRIC (IIT Kharagpur) sponsored project (as a part of CFER) with Prof. Jayanta Mukhopadhyay as the principal investigator. KRSSG won bronze in FIRA 2015.

### Robocup3d Simulation League.

KRSSG is first Indian team to qualify for Robocup3d simulation which was held at Germany in July 2016. KRSSG made an outstanding debut by qualifying all rounds and being undefeated by 3 teams in any match.

- Implementing CMA-ES based walk and kick optimization
- Implemented basic skill and utilities
- Implemented team positioning and Implemented Role Assignment
- Implemented multi agent passing
- Represented KRSSG in Robocup2016 at **Leipzig, Germany**

### Code-O-Soccer.

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.  
present, The Goldman Sachs Group, Inc. is a leading global investment banking, securities and  
Bengaluru investment management.

## National Digital Library Project

May 2016 – **Internship**.  
July 2016, NDL is a flagship initiative of MHRD  
Kharagpur

- 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 | Sympy | C++.  
March 2016 SymEngine is a fast C++ symbolic manipulation library.

- Successfully merged 17 pull requests pushing total 56 commits.
- Listed as author in symengine.
- Author of the talk *SymEngine: A Fast Symbolic Manipulation Library* in Scipy2016 at **Texas (USA)**.

## 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

- Department rank 1
- 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))
- Achieved Excellent (EX) grade in Programming and Data Structures, Algorithms, Machine Learning, Artificial Intelligence.
- Represented KRSSG in Robocup2016 at **Leipzig, Germany**. The group made an outstanding debut by winning all matches against 1 team and drew multiple matches against 2 teams.
- Author of the talk *SymEngine: A Fast Symbolic Manipulation Library* in Scipy2016 at **Texas (USA)**.