# Abhinav Agarwal

## 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, Data Analytics, Information Retrieval, Cryptography, Computer Architecture and Operating Systems, Intelligent System

#### 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

- Department rank 1
- o 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 Scipy2016 at **Texas (USA)**.