

# Vaibhav Agarwal

Computer Science and Engineering, IIT Kharagpur  
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## EDUCATION

**IIT KHARAGPUR**  
B.TECH IN COMPUTER SCIENCE  
AND ENGINEERING  
2014-Present | CGPA: 8.6/10.0

**MAHATMA HANSRAJ MODERN  
SCHOOL, JHANSI (CBSE)**  
SENIOR SECONDARY GRADE 12  
Overall: 95.4%

**CHRIST THE KING COLLEGE,  
JHANSI (ICSE)**  
SECONDARY GRADE 10  
Overall: 94%

## LINKS

Github:// [VaibhavAgarwalVA](#)  
LinkedIn:// [VaibhavAgarwalVA](#)  
CodeChef:// [infiniticoder](#)

## CS COURSEWORK

Algorithms 1, Algorithms 2 \*  
Software Engineering  
Computer Organization \*  
Programming and Data Structures  
Compilers \*, Automata Theory  
Discrete Structures  
Linear Algebra \*, Graph Theory \*  
Probability and Statistics  
Switching Circuit and Logic  
(\* denotes ongoing courses)

## SKILLS

**PROGRAMMING LANGUAGES**  
C/C++ • Java • Python • C#  
• php • x86 Assembly

**OPERATING SYSTEMS**  
Ubuntu • Microsoft Windows

**UTILITIES**  
Git • Linux Shell • OpenCV  
• GDB •  $\LaTeX$  • Docker

## HACKATHONS

Microsoft Build The Shield 2016  
(1st position in IIT Kharagpur)  
Microsoft Code.Fun.Do 2015  
Microsoft Code.Fun.Do 2014  
Flipkart OverNight Hackathon 2015

## LANGUAGES

**HINDI** Matra-Bhasha !!  
**ENGLISH** Professional Proficiency  
**GERMAN** kann sprechen !

## AWARDS AND ACHIEVEMENTS

- 2015 ACM ICPC Asia Amritapuri Regionals finalist
- 2015 FIRA 2015, South Korea Bronze Medal for IIT Kharagpur
- 2016 RoboCup 2016, Germany Represented IIT Kharagpur
- 2016 CodeChef SnackDown 2016 Pre-finalist Top 300 in 9000+ teams
- 2014 All India Rank 217 , JEE Advanced, among 150,000 candidates
- 2014 All India Percentile 99.99 , JEE Mains, among 1.5 million candidates
- 2014 Academic Achievement Award 2014-15 IIT Kharagpur
- 2013 KVPY (Govt. of India) scholarship awardee
- 2010 National Talent Search (Govt of India) scholarship awardee
- 2014 Indian National Olympiads (Physics & Chemistry) Top 300 in India
- 2014 Aditya Birla Scholarship 2014 Shortlisted, among top 30 from all IITs

## EXPERIENCE AND PROJECTS

**SOFTWARE DEVELOPER AND RESEARCHER | May'16-July'16**  
Kharagpur RoboSoccer Students' Group, IIT Kharagpur

- Developed positioning module for humanoid robots using Voronoi cell method and dynamic role assignment using maximum bipartite matching Hungarian algorithm.
- Integrated successfully. Increased time efficiency by 30%.
- Participated in RoboCup 2016, Germany.

**SOFTWARE DEVELOPER AND RESEARCHER | May'15-July'15**  
Kharagpur RoboSoccer Students' Group, IIT Kharagpur

- Created a path planner for differential drive autonomous robots.
- Decreased slip parameter to less than 1%.
- The team won Bronze at FIRA 2015, South Korea.

**UNDERGRADUATE RESEARCHER | Aug'16-Present**  
Smart Wireless Applications and Networking Group, IIT Kharagpur

- The group, under the School of Information Technology IIT Kharagpur, works in the field of IoT and nano networks.
- Working on bacterial nano networks and its applications in the world of IoT.

**SOFTWARE DEVELOPER OpenSoft, IIT Kharagpur | Spring '16**

- Created a software to extract details from a plot and tabulate them using OpenCV and tesseract.

**BACK END DEVELOPER Game Theory Society, IIT Kharagpur**

- Contributed to back end of an online game made using CodeIgnitor framework in php.
- Played by over 1000 participants from across India.

**IMAGE PROCESSING MENTOR IIT Kharagpur | Dec'15**

- Mentored over 50 students in IEEE certified workshop.
- Taught various image processing techniques and algorithms.

**CODE CLUB Programming Mentor | IIT Kharagpur**

- Problem setter and tester in coding contests at IIT Kharagpur.
- Mentored over 100 students in algorithms and data structures.
- Provided logistics support for Bitwise 2016, which saw the participation of over 1000 programmers across the globe.

**GRID FOLLOWER Robotics Workshop, IIT Kharagpur | Dec'14**

- Attended Texas Instruments certified workshop and built an autonomous grid follower robot using Atmel Studio.
- Programmed the algorithm using DFS traversal to cover the entire grid.

## MISCELLANEOUS

- Attended RoboCup Symposium at Leipzig, Germany (institute funded).
- Head of Algorithmic Game Theory Society, IIT Kharagpur.
- Sub Head of Maths Olympiad Team at MS Hall, IIT Kharagpur.
- Occasional contributor to Open Source. (my Github account)
- Winner of Open IIT Maths Olympiad 2014-15 and 2015-16 at IIT Kharagpur.