

# Saksham Sharma

Computer Science and Engineering  
Bachelor of Technology  
Indian Institute of Technology Kanpur



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## EXPERIENCE AND PROJECTS

**Research Intern** May'16-July-16  
*Max Plank Institute for Software Systems, Germany*

- Developed and evaluated a Scala tool to rewrite mathematical expressions to increase accuracy using a genetic algorithm
- Obtained successful results, improving expression error by 50%, useful for scientific and embedded applications

**Full Stack Web Developer** May'15-Present  
*Internship under DoFA IIT Kanpur*

- Adjudged as one of the best interns as a freshman
- Implemented various features in a large scale polyglot web application with an extensive technology stack, in a team setup
- Continue coding, as a full-stack developer; managing the search component in Node.js, Scala, Elasticsearch, Angular, TypeScript

**Coordinator**, Programming Club Apr'16-Present  
*Re wrote, deployed, populated club website pclub.in*  
*Organized Freshers' Programming Contest, Linux install fest, conducted programming workshops*

**Software Corner Manager** Dec'16-Mar'16  
*Techkriti 2016, IIT Kanpur*

- Made an esoteric language for a national competition based on x86 assembly
- Made online judge for High Performance Computing contest on the Param supercomputer

**Member, Team Robocon** Oct'14-Mar'15  
*ABU Robocon '15, Dr. Bhaskardas Gupta*

- Worked on 2 semi-autonomous full-size badminton playing bots using Image-processing, Kinect and Stereo Vision to track and predict shuttle path
- Finished 11th among 85 participating teams on a National Level

**Winning team twice**, *Microsoft code.fun.do*

- Developed an app to parse expressions and plot implicit mathematical function graphs
- National 5th in Finals Coding milestone. Platform to learn programming, on our online judge

## MISCELLANEOUS

- Blog** about Linux, programming etc here
- Contribute to **Open Source** on Github
- Administer servers in IIT Kanpur; deploying, automating services for campus community
- Microsoft Build The Shield, National 10th in the final round of CTF

## EDUCATION

2014 – Now **Bachelor of Technology**  
IIT KANPUR  
*CPI/GPA: 10.0/10.0*

2014 **Senior Secondary Grade 12**  
D.A.V. PUBLIC SCHOOL  
*Score: 97.6%*

## AWARDS AND ACHIEVEMENTS

2014-16 **Institute Rank 1, IIT Kanpur**  
*CPI: 10.0 in 4 Semesters*

2015 **Academic Excellence Award**  
*IIT Kanpur, 2014-2015*

2014 **All India Rank 10**  
*JEE Mains, 1.5 million candidates*

2014 **All India Rank 138**  
*JEE Advanced, 150,000 candidates*

2014 **Aditya Birla Scholarship**  
*Among 15 IITans selected*

2013 **KVPY Scholarship awardee**  
*Scholarship by Govt. of India*

2010 **National Talent Search (NTS)**  
*Scholarship by Govt. of India*

## COURSEWORK

Data Structures and Algorithms	A*
Computer Organization	A*
Introduction to Programming	A*
Tools for Computing	A*
Computer Systems Security	A
Discrete Mathematics	A
Abstract Algebra, Logic	A
Probability and Statistics	A

A\* grade for exceptional performance

## TECHNICAL SKILLS

C/C++, Scala, Python, Node.js, Haskell, Lisp

WEB Express.js, Akka, JavaScript, TypeScript, Angular

O.S. Gentoo, Arch Linux, Ubuntu  
UTILITIES Emacs and Vim both, L<sup>A</sup>T<sub>E</sub>X, Linux Shell utilities, Git, Docker, Kubernetes, GDB, Elasticsearch

## INTERESTS

Systems Security, Networks, Open Source, Functional Programming, Web Development