

# Saksham Sharma

<http://acehack.org> [sakshams@\(cse.\)iitk.ac.in](mailto:sakshams@(cse.)iitk.ac.in)

## EDUCATION

**INDIAN INSTITUTE OF -  
TECHNOLOGY KANPUR**  
B.TECH IN COMPUTER SCIENCE  
AND ENGINEERING  
2014-Present | CPI: 10.0/10.0

**D.A.V. PUBLIC SCHOOL**  
SENIOR SECONDARY GRADE 12  
Overall: 97.6%

## LINKS

Github:// [sakshamsharma](#)  
LinkedIn:// [saksham-sharma](#)

## 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 (A)  
Logic in Computer Science (A)  
Probability and Statistics (A)  
(A\* grade for exceptional performance)

## SKILLS

**PROGRAMMING LANGUAGES**  
C/C++ • Scala • Python • Haskell •  
Java • Lisp • x86 Assembly

**WEB DEVELOPMENT**  
Node.js (with Express.js) •  
JavaScript • TypeScript • Angular  
• Scala (with Akka)

**OPERATING SYSTEMS**  
Gentoo Linux • Arch Linux •  
Ubuntu • Microsoft Windows

**UTILITIES**  
Emacs and Vim both • Git • GDB •  
Shell Utilities in Linux • LaTeX

**PLATFORMS**  
Windows Phone, Kinect, Arduino

## INTERESTS

Computer Systems Security  
Programming Languages and  
Approximation  
Open Source  
Functional Programming  
Web Development  
Linux system administration  
Capture the Flag contests

## AWARDS AND ACHIEVEMENTS

2014-16 **Institute Rank 1**, IIT Kanpur (CPI 10.0/10.0 in all 4 Semesters)  
2014 **All India Rank 10**, JEE Mains, among 1.5 million candidates  
2014 **All India Rank 138**, JEE Advanced, among 150,000 candidates  
2015 Academic Excellence Award IIT Kanpur  
2014 Aditya Birla Group Scholarship awardee  
2014 Kishore Vaigyanik Protsahan Yojana (KVPY) Scholarship awardee  
2010 National Talent Search (NTS) Scholarship awardee

## EXPERIENCE AND PROJECTS

### RESEARCH FELLOW | May'16-July'16

#### Max Planck Institute for Software Systems, Germany

- Developed and evaluated tool (in Scala) to rewrite mathematical expressions to lower floating point errors
- Obtained successful results, improving expressions by 50%, tested on expressions taken from various research papers and other sources
- Part of a larger tool being developed to optimize numerical programs

### FULL STACK WEB DEVELOPER | May'15 - Present

#### Internship under DoFA IIT Kanpur, Prof. Manindra Agarwal

- Was adjudged as one of the best interns while being a freshman
- Worked on a large scale polyglot web application with an extensive technology stack, in a team setup, comprising of code reviews etc
- Continue volunteering code, as a full-stack developer; managing the search part; and work on the backend, frontend and infra

### COORDINATOR Programming Club | Apr'16 - Present

- Rewrote, deployed and populated Programming Club website pclub.in
- Helped organize the Science and Technology Council Summer Camp '16
- Previously as a *Secretary*, Organized Freshers' Programming Contest, Linux install fest, and conducted beginner programming workshops

### ABU ROBOCON IITK TEAM MEMBER '15 | Under Dr. Bhaskardas Gupta

- Worked on making 2 semi-autonomous robots capable of playing badminton on a full size court
- Image-processing to track, predict shuttle trajectory. Arduino and Odroid for robot control using PS3 remote
- Used stereo-vision, and later Microsoft Kinect for depth data of shuttle
- Finished 11th among 85 participating teams on a National Level

### MICROSOFT CODE.FUN.DO WINNING TEAM MEMBER Twice, IIT Kanpur

- Developed PlotIt, a graph-plotting app to parse and plot implicit mathematical functions as graphs. Platform: Windows Phone
- Made a front end to an open source program simulation code using JS
- National 5th in finals round Coding milestone. Made platform to learn programming; app in C#, backend for program running in *node.js*.

### SOFTWARE CORNER MANAGER Techkriti 2016, IIT Kanpur

- Made a new esoteric programming language for a national competition
- Made online judge for a National High Performance Computing competition, hosted on CDAC's Param Yuva II Supercomputers

## MISCELLANEOUS

- Blog about Linux, programming etc at [acehack.org](http://acehack.org)
- Contribute often to Open Source (Github), have many personal projects
- Attended a full paper-reading seminar-like course on Approximate Computing during Summer '16 at the Max Planck Institute
- Administer servers in IIT Kanpur; deploying, automating services
- A *Linux enthusiast*, tinker around with my Linux box in free time
- Various research talks, seminars and guest lectures attended in Germany