

Saksham Sharma

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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, ASR
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 • \LaTeX • GDB •
Linux Shell Utilities • Git • Docker
• Kubernetes • ElasticSearch

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 using a genetic algorithm
- Obtained successful results, improving expression error by 50%, useful for scientific and embedded applications
- 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
- Implemented various features in a large scale polyglot web application with an extensive technology stack, in a team setup
- Continue volunteering code, as a full-stack developer; managing the search component; 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 a graph-plotting app to parse expression trees and plot implicit mathematical function graphs from scratch for 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](#)
- Contribute sporadically to **OPEN SOURCE** (Github), have many personal projects
- Microsoft **BUILD THE SHIELD**, qualified first round and were National 10th in the onsite round, a competition based on offensive, defensive hacking
- Read and studied a fair share of **COMPUTER SECURITY** related papers and material, along with crediting a graduate course at IIT Kanpur
- Attended a full paper-reading seminar-like course on **APPROXIMATE COMPUTING** during Summer '16 at the Max Planck Institute
- **ADMINISTER** various servers in IIT Kanpur; deploying and automating services
- A *Linux enthusiast*, tinker with my Linux; well versed with details
- Various research talks, seminars and guest lectures attended in Germany