

# Ayush Bansal

SECOND YEAR UNDERGRADUATE · COMPUTER SCIENCE AND ENGINEERING

Indian Institute of Technology

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## Education

Year	Degree	Institution(Board)	CGPA/%
July'16 – Present	B.Tech, CSE	Indian Institute of Technology, Kanpur	8.2/10.0
2016	AISSCE – XII	Saint Josephs School, Kota (CBSE)	95%
2014	AISSCE – X	Saint Pauls School, Kota (CBSE)	94%

## Honors & Awards

2016	<b>All India Rank 187</b> , Joint Entrance Exam Advanced, 200,000 candidates	India
2016	<b>All India Rank 571</b> , Joint Entrance Exam Mains, 1.5 million candidates	India
2016	<b>All India Rank 52</b> , KVPY Scholarship, Indian Institute of Science and Government of India	Bangalore, India
2015	<b>Merit Certificate, National Top 1%</b> , Indian National Chemistry Olympiad	India
2015	<b>Merit Certificate, State Top 1%</b> , Indian National Astronomy Olympiad	India

## Work Experience

### New York Office, IIT Kanpur

Kanpur, India

INFRASTRUCTURE MANAGEMENT, UNDER PROF. MANINDRA AGARWAL

May 2017 - Present

- Interned in Summer'17, currently associated as volunteer.
- Worked on a scalable microservice based web application with extensive technologies.
- Deployed microservices utilizing Docker container, Coreos Container Linux, JenkinsCI, and maintaining the cluster on Kubernetes.
- Configured and deployed Persistent Volume Storage System.
- Technologies used: Kubernetes, Docker, Nginx, Coreos Applications, Glusterfs.

## Projects

### Linux Memory Management

IIT Kanpur

COURSE PROJECT, PROF. DEBADUTTA MISHRA

Oct. 2017 - Present

- Aim is to create a better **Virtual Address** organization.
- Finding wastage (internal fragmentation) in page table pages.
- Studying compressibility of page tables for different applications.

### Ethical Hacking

IIT Kanpur

PROGRAMMING CLUB

Summer'2017

- Learnt exploitation techniques like buffer-overflow, integer-overflow, format strings and heap exploits.
- Used debuggers and knowledge of x86 Assembly language to exploit binary files.
- Performed various web attacks like sql-injection, XSS and CSRF.
- Learnt basics of Cryptography.

### Linux From Scratch

IIT Kanpur

ASSOCIATION OF COMPUTING ACTIVITIES

Feb. 2017 - Apr. 2017

- Created an offline **Student Search** entirely in bash script and mini-projects in python like implementing **Grep via Python** and using **ZeroMQ** to make a game of passing the parcel.
- Created a **Customized Linux** based operating system from scratch with a final aim as to get familiar with Linux Environment.
- Mid Semester project under Association of Computing Activities (ACA), IIT Kanpur.

## Extracurricular Activity

**Secretary** PROGRAMMING CLUB, IIT KANPUR

Apr. 2017 - Present

**Leader** DEVELOPER STUDENT CLUB, IIT KANPUR

July 2017 - Present

## Relevant Coursework

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Introduction to Programming   Discrete Mathematics (*i*)   Logic in Computer Science (*i*)

*i: In progress*

## Skills

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**Languages**   C/C++, Bash, Python, Golang, Javascript

**Utilities**   Linux shell utilities, Git, Docker, Kubernetes, , GDB,  $\text{\LaTeX}$ , Vim

**Operating Systems**   Arch Linux, Ubuntu

## Miscellaneous

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- Enthusiastic about Systems and always try to learn new stuff about Linux architecture, networking or security.
- Contribute to open source projects and maintain projects on Github.