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	8.5/10.0
2016	AISSCE – XII	Saint Josephs School, Kota (CBSE)	95%
2014	AISSCE – X	Saint Pauls School, Kota (CBSE)	94%

Honors & Awards

2016	**All India Rank 187**, Joint Entrance Exam Advanced, 200,000 candidates	*India*
2016	**All India Rank 571**, Joint Entrance Exam Mains, 1.5 million candidates	*India*
2016	**All India Rank 52**, KVPY Scholarship, Indian Institute of Science and Government of India	*Bangalore, India*
2015	**Merit Certificate, National Top 1%**, Indian National Chemistry Olympiad	*India*
2015	**Merit Certificate, State Top 1%**, 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.
- Deployed microservices utilizing Docker container, Coreos Container Linux, JenkinsCI, and have maintained 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*

UNDER PROF. DEBADUTTA MISHRA   *Oct. 2017 - Present*

- Create a better **Virtual Address** organization for improving performance.
- Find wastage (internal fragmentation) in page-table pages.
- Study 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 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

Introduction to Programming   Discrete Mathematics   Logic in Computer Science
Abstract Algebra (A∗)

A∗: Grade for Exceptional Performance   i: In progress

Skills

Languages	C/C++, Bash, Python, Scala, Golang, Javascript
Utilities	Linux shell utilities, Git, Docker, Kubernetes, , GDB, LaTeX, Vim
Operating Systems	Arch Linux, Ubuntu

Miscellaneous

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