

Abhimanyu

Third Year Undergraduate
Computer Science And Engineering
Indian Institute of Technology, Kanpur

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EDUCATION

April 2019	B.Tech (Computer Science and Engineering)	IIT KANPUR	8.2/10.0
April 2015	Class XII(Central Board For Senior Education)	DPS Hisar	96.20%
April 2013	Class X(Central Board For Senior Education)	NIS,Hisar	10.0/10.0

ACADEMIC ACHIEVEMENTS

- Secured **AIR-189** in **JEE(Advanced)2015** among **1.5 lakh** students.
- Secured **AIR-245** in **JEE(Mains)2015** among **13 lakh** students.
- Selected for the prestigious **KVPY** scholarship, in stream SX.
- Certificate of merit for being among **top 0.1%** in the country in XII mathematics by CBSE.

OTHER ACHIEVEMENT

- Secured **Third position** in **5th Inter IIT Tech Meet** in **Indoor Localisation** among **10** competing **IITs**.

WORK EXPERIENCE

- **Machine Learning Intern, Samsung R&D Bangalore** May'18-July'18
Multimodal Emotion Recognition
 - Studied existing approaches for **Emotion Recognition** using **deep neural networks**.
 - Experimented with different CNN architectures such as **MobileNet V1, MobilNet V2 and Inception-like architecture**.
 - Collaborated with other engineers in the team. Received a **returning job offer**.

PROJECT

- **C# Compiler(Compilers Course Project)** Jan'18-April'18
(Mentor: Professor Shubhajit Roy)
 - Implementing a **C#** to **MIPS** compilers in **C**.
 - Supports higher level constructs like **structs,arrays** and **switch**.
- **NachOS Extension(OS Project)** July'17-Nov'17
(Mentor: Professor Mainak Chaudhary)
 - Extended basic **NachOS** to a fully grown operating system.
 - Implemented **fork, join, sleep, exit** and other **system calls**.
 - Tested **First come First serve(FCFS)**, **Shortest Remaining Job First (SRJS)** and **Round Robin(RR)** scheduling algorithms.
- **Securing ZooBar Server(Security Course Project)** Jan'18-Present
(Mentor: Professor Sandeep Shukla)
 - Found various security vulnerabilities in the server code.
 - Exploited vulnerabilities using control hijacking techniques like **buffer overflow,format string attacks** and **ROP**.

- Performed various browser-based attacks like **SQL injection**, **XSS**, **CSRF** on Zoobar web application.
- Fixed security bugs in web server, implemented **privilege separation** and **server-side sand-boxing** of executable profiles in the okws server.

OTHER PROJECTS

SLAM (Simultaneous Localization and Mapping):	Experimented with localization algorithms.
WASP (WiFi And Simulated Positioning):	Developed autonomous robot to reach target using WiFi signals.
Sentiment Analysis of Movie Reviews:	Implemented various ML algorithms for sentiment analysis.

TECHNICAL SKILLS

Programming Languages (PROFICIENT):	C, C++, Python
Programming Languages (FAMILIAR):	PHP, Javascript, Java, x86

INTERESTS

Computer Architecture	Operating Systems	Computer Security
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RELEVANT COURSES

CS422: Computer Architecture*	CS220: Computer Organisation	CS330: Operating Systems
ESO207: Data Structures and Algorithms	CS340: Theory of Computation	CS345: Algorithms II
CS628: Computer Systems Security*	CS315: Principles of Database Systems*	CS335: Compilers Design*
CS771: Introduction to Machine Learning		

¹ *-Ongoing Courses

EXTRACURRICULAR ACTIVITIES AND EVENTS

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- Developed a server based android app to store medical history of the user in Google Devfest-2016 organized by E-cell
 - Participated in Robotricks in the inter-hall event Takneek-2015.
 - Pursued skating as my CPA(Compulsory Physical Activity) in my 1st year being the Captain.