

Vaibhav Nagar

THIRD YEAR UNDERGRADUATE · COMPUTER SCIENCE AND ENGINEERING, IIT KANPUR
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Education

2014-present	B.Tech(Computer Science and Engineering)	Indian Institute of Technology, Kanpur	9.1/10
2014	AISSCE (Class-XII CBSE board)	Ramakrishna Vidya Mandir, Gwalior	95.6%
2012	AISSE (Class-X CBSE board)	Venus Public School, Gwalior	10/10

Scholastic Achievements

- Received **Academic Excellence Award (IIT Kanpur)** for outstanding academic performance in the academic term **2014-15**.
- Secured **All India Rank 486** (amongst around 1.5 lakhs candidates) in **IIT-JEE (Advanced) 2014**.
- Secured **All India Rank 926** (amongst over 14 lakhs candidates) and **State Rank 15** with **All India Percentile Score-99.93** in **JEE (Mains) 2014**.
- Awarded **KVPY** (Kishore Vaigyanic Protsahan Yojana) **2014 scholarship** and secured **All India Rank 466** after getting selected in both written exam and interview.
- Awarded **Inspire Scholarship** by virtue of performance within **top 1%** of Senior School Certificate Examination 2014 (Class-XII, CBSE).
- Secured **All India Rank 355** (amongst around 1,93,000 candidates) in **VITEEE 2014**.

Internship

Monet Networks Inc

Gurgaon, India

SOFTWARE DEVELOPER

May 2016 - July 2016

- Implemented various features to enhance Monet's non-verbal cues (NVCs) analytics platform which provides a way to capture, track and analyze video content in real-time and allows users to find and rate different brands' content.
- Developed a feature of analyzing text to get emotions out of it using a tone analyzer api and displayed in column graph from a set of emotions in a campaign.
- To detect gibberish texts, a model of character to character transitions from bunch of English text based on Markov's chain is used which tells how often characters appear next to each other.
- Created a portal to add campaigns of videos, images and texts in both form, url and uploaded files, other than just campaigns of youtube video urls through backend and frontend which makes Monet more versatile.
- Made several templates to display uploaded videos using video-js, image slide-shows and texts with custom animations and its speed feature along with play and pause (as each campaign has to be displayed for limited amount of time).
- Integrated templates with Wowza streaming engine and Webcam-js to capture snapshots in real time based on flash in browser.

Projects

Computer Network Projects

IIT Kanpur, India

COURSE PROJECTS UNDER PROF. SANDEEP SHUKLA

Aug 2016- Sep 2016

- Built a concurrent HTTP Server with hyperlinked directory feature using socket programming.
- Implemented a concurrent HTTP proxy server which acts like both a HTTP client and a HTTP server.
- Implemented the STCP transport layer which provides a connection-oriented, in-order, full duplex end-to-end delivery mechanism.

NachOS

IIT Kanpur, India

COURSE PROJECT FOR OPERATING SYSTEMS UNDER PROF. MAINAK CHAUDHURI

Aug 2016- Present

- Extended the NachOS operating system to perform various system calls such as Fork, Join, Exec, Sleep and Exit.
- Implemented several scheduling algorithms such as UNIX Scheduler, Round Robin and Non-preemptive with burst estimation and their performance is evaluated.

Gyro-stabilized Plane

SUMMER PROJECT UNDER AERO-MODELLING CLUB

IIT Kanpur, India

May 2015- June 2015

- Objective was to make a composite RC plane embedded with Arduino (micro-processor), which is stable even in high wind speed and used for maneuvering purposes.
- Developed a code written in Arduino IDE using PID (proportional-integral-derivative) controller feedback mechanism to find error in all three axes and then rectified.
- The code directly controls the movement of main components like motor and servos of plane to provide it stability.
- Accelerometer and gyro-meter were used to find orientation of plane during its flight and got success in achieving favorable statistical data of test flights.

The Game of Cops and Robbers on Graphs

COURSE PROJECT FOR DISCRETE MATHEMATICS UNDER PROF. RAJAT MITTAL

IIT Kanpur, India

Aug 2015-Nov 2015

- Studied theorems related to upper and lower bounds on the cop numbers required to capture the robber after finite number of rounds.
- Examined more about the retraction of graphs and dismantlable graphs and their theorems.

Technical Skills Set

Programming	C, C++, Python, Shell, GNU Octave, \LaTeX , Java(basics), Verilog, Assembly(x86)
Web Development	HTML, CSS, PHP, JavaScript, JQuery, SQL
Platforms/ Tools	Windows, Linux (Ubuntu, mint), Vim, Git, Gnuplot, SQLite, NetBeans IDE, Xamp, Android Studio, Visual Studio, Arduino, MS Office, Unity, AutoCad, Inventor

Coursework

CS330: Operating Systems*	CS345: Algorithms - II*	CS252: Computing Laboratory - II*
CS425: Computer Networks*	CS340: Theory of Computation*	CS251: Computing Laboratory - I
CS210: Data Structures and Algorithms	CS220: Computer Organization	CS201: Discrete Mathematics
CS202: Mathematical Logic	CS203: Abstract Algebra	ESC101: Fundamentals of Computing
MSO201: Probability and Statistics	MTH102: Linear Algebra and ODE	ESC201: Introduction to Electronics
EDX: Python and Java programming		

* : Ongoing

Position of Responsibility

Alumni Contact Program

JUNIOR EXECUTIVE

IIT Kanpur

Jan 2015-April 2015

- Convinced Alumni to provide funds for various scholarships and infrastructural development of institute.
- Ensured strengthening of the Alumni Network of the institute and gained experience by working in office like environment.

Extra-Curriculars

- Participated in **Code.Fun.Do 2015 (Microsoft)**, a 24 hours long appathon and certified for completing within time limit.
- Certified for exemplary performance in NCC (National Cadet Corps) and become a bonafide cadet in the first year.
- Certified for giving symposium in IPS college(Gwalior) on Our Learning Style in X standard.
- Certified for promoting Peace begins with me by participating in poster making contest in VIII standard.