Mayank Sharma

Third Year Undergraduate
Computer Science & Engineering

H-315/5, IIT Kanpur
+91-9461240034 | mayank8019@gmail.com
 mayanksha | mayanksha | msharma.in

EDUCATION

- **Indian Institute of Technology, Kanpur** — Kanpur, India
  B.Tech in Computer Science & Engineering; CGPA 6.25/10.0 — *July 2016 – present*
- **Children Senior Secondary School, Dadabari, Kota (Raj.)** — Kota, Rajasthan
  *AISSCE Class XII; **92.0%*** — *2016*
- **Central Academy Sr. Sec. School** — Chittorgarh, Rajasthan
  *CBSE Class X; **CGPA 10.0/10.0*** — *2014*

KEY SCHOLASTIC ACHIEVEMENTS

- **All India Rank 630** in JEE Advanced 2016 among 200 thousand selected candidates.
- **All India Rank 2237** in JEE Main 2016 among 1.2 million candidates.
- **All India Rank 854**, KVPY Fellowship Award (2015) awarded by Department of Science and Technology, India.
- Awarded **Certificate of Merit** for being in **State Top 1-Percent** in Nation Standard Examination in Physics (NSEP) in 2016.

INTERNSHIP EXPERIENCE

- **Software Developer Intern, EarlySalary** — Pune, India
  Pickup System Case Allocation Automation (Mentor: Vivek Jain) — *May 2018 - July 2018*

  ○ Worked on the backend of a scalable web app, and helped migration from existing PHP based system.

  ○ Implemented centralized Authentication & Authorization using **Jumpcloud's Directory-as-a-Service**.

  ○ Helped design APIs and Algorithms, to retrieve a new case and automatically assign to a Pickup Agency based upon its priority in a cluster, as soon as a new case is added.

  ○ Developed Microservices for Lambda based REST APIs and deloyed them on Lambda using Claudia.js.

  ○ **Techonologies Used**: Express.js with Node.js, Typescript, Redis (as session store), MySQL, LDAP, AWS Services.

PROJECTS

- **Zero Shot Sketch Based Image Retrieval (SBIR)** — Kanpur, India
  Intro. to Machine Learning (Prof. Piyush Rai) — *Aug. 2018 - Nov. 2018*

  ○ Implemented Principal Component Analysis & tried extending it to zero-shot setting, to test how it generalizes to other unseen classes.

  ○ Used TU Berlin Sketch Dataset and learned how to extract features to be later compared to hand-drawn sketches.

  ○ Used canny edge detection to convert images to basic sketches in OpenCV.

  ○ Modeled these images using caffe and tensorflow by taking hints and code snippets from various research papers.

- **Linux From Scratch** — GitHub (/mayanksha/lfs)
  ACA Semester Project — *Jan. 2017 - Apr. 2017*

  ○ Developed a **Student Search** in bash which scraped data from Office Automation Portal.

  ○ Used the ZeromQ library in python to implement client server model to play Collatz Conjecture Game.

  ○ Created a **SysVInit** based bare-bones linux distribution, compiling packages from tarballs, building upon the host system kernel and finally compiling the kernel for new distro.

TECHNICAL SKILLS

- **Programming :** Javascript and Typescript (*Proficient*), Golang (*Fluent*), C++, C, Bash Scripting
- **Web :** Express.js with Node.js *(Fluent)*, Angular 4, MongoDB (Mongoose), Nginx & Openresty
- **Databases & Utilities :** MySQL, Redis, LDAP, Git, LaTeX, Vim, AutoCAD
- **Operating Systems :** Linux (Arch, Ubuntu & LFS), Windows

Positions of Responsibility

- **Head, Web Development, Entrepreneurship Cell, IIT Kanpur** *(April '18 - present)*
  - Spearheading a team of 10+ Senior Web Developer Executives, effectively distributing development work and collaborating in a Git Organization.
  - Developed Campus Ambassador and Events Registration Portals. (MEAN Stack)

- **Webmaster, Hall 5, IIT Kanpur** *(Nov. '17 - Oct. '18)*
  - Redesigned and revamped the webpage of Hall 5, IIT Kanpur.

Relevant Courses

Systems & Cyber Security (i)	Blockchain Technology & Applications (i)	Database Systems (i)
Operating Systems	Intro. to Machine Learning	Software Engineering (i)
Data Structures & Algorithms	Discrete Mathematics	Introduction to Programming

i: In progress

Extracurriculars & Hobbies

- Won the Inter-hall Capture-the-Flag (CTF) competition participating from the pool Mughals.

- A fitness enthusiast, who likes to lead an active lifestyle, regularly hitting the gym and lost 20 Kgs weight in the first year.

- Part of School Basketball Team playing at District Level, winning accolades for the team.

Interests

- Cyber-Security and Reverse Engineering. Working with low-level C/C++ Code and finding exploits in them.

- Architecture and Scalability aspects of various highly performant Backend Systems.

- Open-source development. Currently, working towards bugs in Gnome-Maps application for the Gnome Organization. IRC (irc.gnome.org - mayanksha)