DEEPESH CHAUDHARI

M.Tech | CSE, IIT Kanpur

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Academic Qualifications

Year	Degree/Certificate	Institute	CPI/%
2019 - Present	M.Tech.(CSE)	Indian Institute of Technology, Kanpur	pursuing
2018	B.Tech.(CSE)	Allenhouse Institute of Technology, Kanpur	75.8%
2014	Class XII(U.P. Board)	S.V.M. Inter College, Kanpur	73.4%
2012	Class X(U.P. Board)	M.V.M. Inter College, Kanpur	80.0%

Research Experience

- **Detecting malicious accounts in Bitcoin Blockchain using Temporal graph** (Master Thesis), (*from Jul'20 - present*)
  Supervisor: Prof. Sandeep K. Shukla
  - Our aim is to devise a Machine Learning algorithm that detects malicious accounts within such permissionless blockchains and study the effect and applicability of features used across varied types of Blockchains such as Bitcoin and Ethereum.

Work Experience

- **Cubersindia (Co-Founder)** (*from June'16 - till July'18*)
  - Developed products like ecommercial website, hospital management and multi-level marketing(MLM) software.
- **Idea Cellular, Aditya Birla Group (Internship)** (*from July'17 - till Aug'17*)
  - Interned in two project first one is CCM (Customer Complaint Management) and another one is corporate survey system.

Course projects

- **Load Balancer (CS654A)**, **Guide:** Prof. T.V. Prabhakar (*from Aug'19- till Sept'19*)
  - Implemented a load balancer to distribute traffic on multiple servers based on request. (PHP, HTML, MySQL and Docker)
- **Fault Tolerance site (CS654A)**, **Guide:** Prof. T.V. Prabhakar (*from Sept'19- till Oct'19*)
  - Designed a highly available website (replicate ping-echo and active redundancy) hosted on multiple servers. (PHP, HTML, CSS, MySQL and Docker)
- **Malware detection using ML techniques (CS698M), Guide:** Prof. Sandeep. K. Shukla (*from Feb'20- till Mar'20*)
  - Performed feature analysis on executables, campared different ML models to find benign and malware and get best performance by Random Forest Model. (Python and Linux shell script)
- **Recommendation system (CS771A)**, **Guide:** Prof. Purushottam Kar (*from Aug'19- till Dec'19*)
  - Recommendation system which recommends top 5 items, Implemented Bonsai - Diverse and Shallow Trees for Extreme Multi-Label Classification and used K-means clustering for label partition at each node. (Python and C++)
- **DeCAPTCHA (CS771A)**, **Guide:** Prof. Purushottam Kar (*from Oct'19-till Nov'19*)
  - We trained a convolutional neural network model to identify each character in the image(CAPTCHA) which involves extraction of individual characters from given CAPTCHA images which are then used for training the model. (Python3)
- **POS Tagger and Bottom-up parser (CS673A)**, **Guide:** Prof. Ajai Jain (*from Jan'20- till Feb'20*)
  - Trained a POS tagging model using training corpus containing POS tags for english sentences, used to calculate F-score and predict tagging, designed a bottom up parser to parse sentences using given grammar. (Python3 and C++)
- **Verification using SAT/SMT solver (CS675A)**, **Guide:** Prof. Pramod Subramanyan (*from Feb'20- till Mar'20*)
  - Used SAT solver(sat4j) to detect tampering in manufactured circuits and to test equality of given firewalls.
  - Also used SMT solver(z3) solvers to solve various problems including sum-sudoku, which is a slightly modified version of the usual sudoku. (Scala)

BTech Project

- **Online discussion forum with library management**, **Supervisor:** Prof. Hammad M. Lari (*from May'17 - till June'18*)
  - It is a web based intra-college platform, which have functionalities like post doubts with specific public filtration, post ratings, reporting as spam, trending and notes collection and other administration related functionality.
  - This portal also manages library administration and automatically generates student CVs with the help of their profiles.

Technical Skills

- **Languages:** Python, C, PHP & MySql, HTML, CSS
- **Tools:** Git, Linux, Django, Latex, Jupyter Notebook, Wondershare Filmora and Adobe Photoshop

Position of Responsibility

- **Teaching Assistant - Fundamentals of Computing(ESC101)** (*from Aug'19- till Apr'20*)
  - Responsible for conducting weekly C programming labs, doubt solving, invigilating and grading exams.

Scholastic achievements and extra-curricular activities

- Reached 1.2K subscribers on **YouTube**. (*from Aug'19- till Apr'20*)
- College cultural fest coordinator. (*2017*)
- Participated in college cultural fests. (Oorja'16, Reeth'17, Impression'20)

Relevant Courses

Intro to ML(CS771A)	Machine Translation(CS673A)	Software Architecture(CS654A)
Verifiably Secure Systems(CS675A)	Advanced Algorithms (CS647A)	Malware Analysis(CS698M)

Interests and Hobbies

YouTube | Solving Rubik's cube & Mirror cube | Writing Lyrics & Poetry | ⚽ Playing sports