

DIKSHA CHAUDHARY

+91-98288 94977 | dikshachaudhary43@gmail.com

Examination	University	Institute	Year	CGPA
PhD	IISc Bangalore	Indian Institute of Science, Bangalore	2018- Present	8.10
Graduation	MNIT Jaipur	Malaviya National Institute of Technology Jaipur	2014-2018	8.71

INTERNSHIPS & PROJECTS

MY TIME APPLICATION | JP MORGAN CHASE

[May '17- Jul '17]

Deployed an application on cloud to effectively manage the resources & employee time management, received a pre-placement offer for outstanding performance

- ❖ Visualized and modified the existing infrastructure to make it user friendly by integrating Elasticsearch Logstash Kibana stack & using 12 factor app
- ❖ Developed & deployed the new application on cloud to efficiently track the time management of every employee, work efficiency improved by 17%
- ❖ Optimized the risk of external dependencies & provided required recommendations, Upgraded the application from jersey 1 to jersey 2

INDOOR LOCALIZATION & REMOTE MONITORING | IOT | Final year project

[Aug '17-Apr '17]

Understood and analysed the application of current age technology by leveraging the use of IoT

- ❖ Located the smartphone in an indoor environment using Wi-Fi trilateration after Scanning the signal strength and MAC addresses of nearby legitimate access points, Processed the signal strength to calculate the distance between transmitter and receiver using free space path loss model
- ❖ Captured the temperature & humidity data from sensor DHT22 using Raspberry Pi and posted it to local host to monitor the room temperature

TRACING THE POPULATION MIXTURE IN INDIA

[Sept '18-Dec '18]

Analysed the mixture of two genetically divergent ancestral populations, Ancestral North Indians (ANI) and Ancestral South Indians (ASI) from which most of the current ethno-linguistic Indian groups are descended and determined how closely these groups are related

- ❖ Modelled the data set containing the genome-wide data of 348 unrelated Indian individuals from 52 castes, each individual genotyped at approx. 500,000 SNP
- ❖ Performed principal component analysis to reduce the large number of dimensions to the dimensions which maximize the spread of points to identify the most divergent groups. Calculated the fixation index for all the pairs of castes to visualize the difference and the level of population divergence in India

ACADEMIC PROJECTS

VIRTUAL 3D MOUSE

[May '16-Aug '16]

- ❖ Designed a 3D mouse resulting in cursor movement by recognising color of caps placed on fingers and hand gestures, implemented in python
- ❖ Used computer vision techniques & image subtraction algorithm to detect color of finger caps after tracking the movement of finger cap in video frames

ACCELERATED K-TRUSS DECOMPOSITION USING GPUS

- ❖ Included load balancing techniques using GPUs for k-truss decomposition to design efficient graph analysis system with low latency & high efficiency
- ❖ Implemented the required algorithm using CUDA and thrust library, majorly used for the graphs that show power-law nature

Hospital Management System | A portal to mitigate the informative gaps between patients & doctors

[Aug '16-Jan '16]

- ❖ Designed a portal where patients can put all their requirements & queries, can see the doctor information and can download the reports generated by doctors
- ❖ Defined two separate entities for doctors & patients and inter linked them to create different login and sign up page for both, hosted over localhost

8085 Assembly Language Simulation

- ❖ Designed a simulator of 8085 assembly that generates the output to analyse the expressions & mathematical operations

C Compiler Design

- ❖ Designed a compiler in Python language which generates the final output of C program, Included parsing of file, syntactic and semantic analysis of loops

TECHNICAL SKILLS

BIG DATA	• Spark	• Spark Streaming	• Giraph					
FRAMEWORKS								
LANGUAGES	• Python	• SQL	• Java	• HTML	• CSS	• PHP	• VHDL	• C, C++
PLATFORMS	• CUDA	• OpenMP	• OpenCV	• Xilinx	• KVM Hypervisor	• Network Simulator		• MPI

SPORTS

POSITION OF RESPONSIBILITY	CAPTAIN, KABADDI TEAM, MNIT JAIPUR <ul style="list-style-type: none">• Led the team to win All India Inter NIT Championship held at NIT Jaipur, Awarded with the best player of tournament CAPTAIN, ATHLETICS TEAM, MNIT JAIPUR <ul style="list-style-type: none">• Organised athletics meets & workshop to initiate an institute wide health & fitness campaign
AWARDS	<ul style="list-style-type: none">• Gold medallist & Best Player, All India Inter NIT Kabaddi Tournament 2016-17• Won 3 gold medals in shotput, discus throw, javelin throw in the Annual Athletic Meet 2015• Member of the winning team in State Basketball Championship (youth category) in 2011• Bronze medallist in hammer throw, Udghosh'15, IIT Kanpur• Silver medallist in hammer throw, All India Inter NIT Sports Meet 2015-16

EXTRA CIRCULAR ACHIEVEMENTS

- ❖ Secured an All India Rank 767 in GATE (CS) 2018 among 1 Lakh participants
- ❖ Secured an All India Rank 10149 in JEE Mains Examination 2014 among 10 Lakh aspirants
- ❖ Secured 1st rank in State Level Talent Search Exam 2014