Nikhil Agarwal

3rd Year Undergraduate

Email: nikhil204@iitkgp.ac.in

LinkedIn Profile

Phone: +91-9330595053

Academic Qualifications

Year	Degree/Certificate	Institute	CPI/%
2018 - Present	B.Tech	Indian Institute of Technology, Kharagpur	8.11/10
2018	CBSE(XII)	Kendriya Vidyalaya No.2 Salt Lake	95.25%
2016	ICSE(X)	St. Mary's Orphanage Day School, Kolkata	97.80%

Internships

• FIELD VIEWERS (Chicago, USA)

(April'20 - July'20)

- Establishment of **WebRTC** platform in a Website and then installed SSL certificates using **NodeJS** to make it secure.
- Developed a Basic Android Video Chat App which was deployed on the Heroku server to connect from anywhere and also using OpenTok-Python-SDK and OpenTok-PHP-SDK, the OpenTok Video Call sessions were established.
- Modified and integrated the functionalities of three different Open source Android App projects into one single app
 according to the need and purpose which has the ability to connect to the websites or any other device.
- OkCredit (Bangalore, India)

(April'20 - June'20)

- Handled **BigData**, using **SQL** from **BigQuery** followed by **Data Preprocessing** to find meaningful insights from it.
- Applied Hidden Markov Model & Viterbi Algorithm to predict the app event sequences based on data of 18000 users.
- ZOOP.ONE (Pune, India)

(May'20 - July'20)

- Performed Blur, Glare, Image Forgery and Face Spoof Detection on Images and Videos of different Cards/Faces with an accuracy of around 98% each using OpenCV module and then deployed all these features in the app by developing an API using Flask. Also applied these features on network Live Streaming by using Socket Programming using ZeroMQ.
- Embibe (Bangalore, India)

(June'19 - July'19)

- I was made the Content Team Manager to lead my Content Development Team consisting of 10 other members.
- Used Advanced Excel and SQL, and also applied basics of Python to ease the tasks for searching and storing data.

Projects

• Indian Institute of Management(IIM) Calcutta

(March'20 - July'20)

Principal Investigator: Prof. Indranil Bose (Department of Management Information Systems, IIM C)

Project Title: Data Analytics of Car Models using Computer Vision, Natural Language Processing & Audio Analysis

- Data Collection done on Indian Car Brands with all its car models including their official YouTube Channels.
- Then by using **Selenium & BeautifulSoup** in **Python**, I executed a code which **automatically extracted** all the data present in a standard YouTube video webpage from around **1000 videos**, then stored and cleaned it in **Advanced Excel**.
- Applied Neural Networks training to detect and identify the respective car brand logos on their advertisement videos using YOLO v3 and also identified that for how much time each person is being displayed in that video, i.e, screen time.
- Extracted Speech from each Video by applying Speech Recognition & FFMPEG, then I did the Sentimental Analysis of all those speeches and the Youtube Comments extracted previously to determine the overall polarity of each video.
- Indian Institute of Management(IIM) Kozhikode

(Dec'19 - Jan'20)

Principal Investigator: Prof. Shahid Abdulla (Department of Information Systems, IIM K)

Project Title: Reinforcement Learning on Tic-Tac-Toe using R programming

In the original R implementation of Nicholas Proelloch's R Library it was unable to beat a human opponent's simple move. So, I improved its performance by doing **Data Analysis** to change the Reward Structure of **4,06,541 possible moves**, using **Advanced Excel techniques** and **Visual Basic for Applications**, that incentives us not only to win, but also to prevent a win of the rival.

Technical Skills

- Programming Languages: Python, R, SQL, C++, Java, C, HTML, CSS, Javascript, OpenCV, NodeJS
- Software and Libraries: Flask, Django, Librosa, SpeechRecognition, Selenium, Tensorflow, NLTK, Advanced Excel, BigQuery

Relevant Courses

Programming and Data Structures	Probability and Statistics
Machine Learning(Coursera)	Linear algebra and Differential Equations
Become a Computer Vision Expert(Udacity)	Neural Networks and Deep Learning(Coursera)
The Complete Python Masterclass(Udemy)	Natural Language Processing(Coursera)

Positions of Responsibility

• Owner and Compiler, Sharp Cookie

(Aua'19-Oct'19)

It was my Startup in which I sold my own Authored books to every fresher of my college so I had managed everything including the Product Marketing, Distribution in Large Scale by which I was able to Successfully sold 915 books worth 3 lacs revenue.

• Secretary Dramatics & Dance Subcommittee, Technology Student's Gymkhana (Mar'19-Mar'20)
I was Elected by the whole student community and won by a margin of 798 votes. I Conducted&Managed all the General Championship Events within 70% of the total budget worth 5 lacs, allotted to me so I was considered forBest Management skills.

Extra-Curricular Activities

- Qualified the Flipkart GRiD 2.0 Robotics Challenge by securing a rank of 237 out of 6261 participants across India.
- Qualified the first round of Overnite (Coding Competition in Kshitij 2019 Tech Fest)
- Secured 2nd rank in Group Dance Competition in Carpe Diem, Annual Fest of IIM CALCUTTA.