SPARSH NAGPAL
Computer Engineering Student | BE - 4th Year

A self-motivated Computer Engineering undergraduate student with an advanced analytical & creative mindset having a strong link in theoretical and practical approach gained from my courses, research and internship experiences. Along with proficient technical skills, I also possess excellent leadership and management qualities making me a quintessential candidate.

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Qualification	University/School	Year of Passing	%/CGPA
B.E. (Computer Engineering) - University of Mumbai	Thadomal Shahani Engineering College, Mumbai	2022 (Expected)	8.83/10 (5 semesters aggregate)
12th (Non-medical Science) – HSC	Pace Junior College, Powai, Mumbai	2018	83.69%
10th – ICSE	Pawar Public School, Chandivali, Mumbai	2016	95.17%

Work Experience

FRIENDS FOR INCLUSION, REMOTE   **NLP And Deep Learning Intern**   **Mar '21 – Present**

- Modelled grammatical translator of **India's first** efficient **Indian sign language interpreter**.
- Enhanced the model efficacy from 60% understandability to **over 90%** by implementing various NLP libraries like Spacy & NLTK.
- Ideated and working upon the **Text Simplification model** using state-of-art encoder architecture.
- **Managing** an intern over Convolutional Neural Networks based **Sign Language to text model**.
- Tested model on **AWS Lambda** serverless service.

SPARKS FOUNDATION, REMOTE   **Computer Vision and IoT Intern**   **Mar '21 – Apr '21**

- Consummated sundry task-operated assignments
- Image colors identification using **K-means clustering algorithm** implemented on images of cricket jerseys
- The tasks also included reviewing peer assignments and verifying algorithmic approach.

PIANALYTIX, REMOTE   **Machine Learning Research Intern**   **Nov '20 – DEC '20**

- Scripted four detailed technical articles based on topics including **Decision Tree Algorithm, OpenCV library, Autocorrection algorithm and Text Summarization model**
- All articles were **published** in the official website on the Pianalytix website.

SPARKS FOUNDATION, REMOTE   **Data Science Intern**   **Oct '20 – Nov '20**

- Consummated sundry task-operated assignments.
- The projects included **business expenditure data analysis**, a **flower type relegation system** predicated on petal dimensions utilizing a **Decision tree algorithm**, and a **supervised ML predictive model**

ARGYLE HR SOLUTIONS PVT LTD., Mumbai   **Business Development Intern**   **Jun '19 – Jul '19**

- Managed and fine-tuned the company's **official website**
- Interacted with over potential **100 clients** for the ongoing projects
- Project **data management** and filtering

Projects

Music Genre Classification Using Machine Learning Models   Machine Learning Models, Python, Flask, HTML, CSS

*A **comparative study** of seven Machine Learning Algorithms, **K Nearest Neighbours, five ensemble algorithms and Logistic Regression** on Musical dataset GTZan to classify various **forms of genres** based on 55 musical features. The best model received an accuracy of **84%.***

Online KYC Verification System   CNN, Image Processing, ML Models, Flask, HTML, CSS, JS

*An online KVY portal **with 5 steps verification** which analysis IDs like Aadhar card and Pan card. It includes Image Detection using **CNN** on VGG-16 transfer learning model, **Siamese similarity** for signature comparison, **OTP** verification system, **OCR** document authentication.*

'AmazKart' E-commerce Aggregator with WhatsApp Automation   Selenium Automation, Python

*A Python selenium-based aggregator program which on inputting the name of required product program performs **automated** search and shows **comparative** best search results from both **Amazon and Flipkart.** It provides **automated WhatsApp** detail transfer option.*

Personalized Streaming List maintainer with User Authentication   HTML, CSS, JS, PHP, MySQL

*The web application helps user create a personalized movie watchlist by performing **CRUD operations** from the movie database and personal selected list. The operations took place real-time which required - **AJAX** integration.*

A Movie Booking System   Java

A movie booking system where the user can select certain seats once from the given matrix allotted for each specific show.

Research Papers

Musical Genre Classification comparative study on various ML models - Published at 2021 International Journal for Research in Applied Science and Engineering Technology (IJRASET)

Indian Sign Language Translation Model for Virtual Interpretation- Accepted at ICISE010 2021: XV. International Conference on Inclusive and Special Education.

Skills

Python (Proficient), Selenium Automation, Flask Backend-Connectivity	Machine Learning, Deep Learning (NN, CNN, RNN), TensorFlow, OpenCV, Keras
Natural Language Processing	HTML, CSS, Bootstrap, JavaScript, XML
SQL, PHP, Data warehousing	Basics of Java, C, C++

Courses

Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning	Coursera	**Natural Language Processing in Vectorized Models**	Coursera
Convolutional Neural Networks in Python	Udemy	**Automate the Boring Stuff using Python -**	Udemy
Image Classification with CNNs using Keras	Coursera	**HTML, CSS, and JavaScript for Web Developers**	Coursera
Building Basic General Adversarial Networks	Coursera	**Using Python to Access Web Data**	Coursera
PHP Tutorial Course	SoloLearn	**Deep Learning Specialization** [Audit Course]	Coursera
Natural Language Processing Specialization [Audit Course]	Coursera	**Convolutional Neural Networks in TensorFlow** [Audit Course]	Coursera

Co-Curricular & Extra-Curricular Activities

Social	- **Rotaract Club of Bombay Powai** – President (2021- Present) – Community Service Director & Sergeant at Arms (2020-21) – General Body Member (2019-20)
Technical	- Jr. Committee Member at the **TSEC CodeCell (2019-20)** - **Organized** College's biggest hackathon 'TSEC Hacks' at CodeCell with **700+ participants** (2020) - Participated in **Delloite Technology Consulting Virtual internship** (2020) - Participated in various **Hackathons** like DJ Sanghvi's CodeIT Hackathon (2020) and TSEC Hacks Hackathon (2021) - Participated in **Global Level Programming Contest** – Heisenbug (2020)
Achievements	- **International Mathematics Olympiad Silver medalist** at school and Jr. college level - Received Special **merit awards** for securing school **highest in 10th board** in Computers and Social Studies - **First Prize** at Contingent Fashion Show Competition (SNDT college) and **Second Prize** at National College - **Outstanding Member of the Year Award** - Rotaract Club of Bombay Powai (2019-20)
Hobbies	- Playing Cricket, Table Tennis, Squash, Chess, Sketching, Painting, Travelling, Baking, Poetry