# Krutika Bhalla

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## **EDUCATION**

# KJ Somaiya College of Engineering and Information Technology, Mumbai, India

July 2018 - May 2022

Bachelor of Technology (B.Tech) in Information Technology

CGPA: **8.97/10** (till Sem VI)

Relevant Coursework: Computer Programming, Data Structures and Algorithms, Operating Systems, Machine Learning and Pattern Recognition, Data Mining and Business Intelligence, Advanced Data Management Technology, Deep Learning, Artificial Intelligence, Wireless Networks, Internet of Things, Principle of Communication, Logic Design, Computer Networks, Automata Theory, Computer Organization and Architecture, Cryptography and Network Security, Internet Programming, Cloud Computing Services.

## Alpha Jr. College of Arts, Commerce and Science

May 2018

Higher Secondary Certificate (HSC) Examination: 82.31%

#### **PROFESSIONAL EXPERIENCE**

#### Grroom, Mumbai, India

October - December 2021

Machine Learning Intern

- Worked on training and testing of YOLO (You Only Look Once) Models.
- Worked on Image Annotation using *labelimg* software.
- Worked on Data Processing including Data Gathering and Data Cleaning.

# TTK Healthcare Ltd, Chennai, India

January - June 2021

Machine Learning Intern

- Developed a project titled Sales Prediction using ML to analyze the data on previous sales made by a TTK product and forecast its sales across multiple stores.
- Implemented regression, time-series analysis and also helped visualize the trends in sales using *matplotlib* and *librosa*.

# Rudraksha Welfare Foundation-NPO, Chandigarh, India

May - August 2020

Senior Web Developer

- Made a CRM software for the employees to keep a track of their projects and assignments and also provides an illustrative graph, specific to them, which is dynamically updated.
- Developed the official website of Rudraksha using JavaScript and PHP Framework.

# E-Yuva Technologies, Gujarat, India

December - 2019

Web Developer Intern

- Developed a project entitled 'Letter of Recommendation Management System' that was an online portal to help and manage a digital record of students' LORs.
- The LORs could be digitally signed by each faculty and an auto-generated pdf was visible on the student's profile.

# **ACADEMIC PROJECTS**

# Multi-Speaker Recognition and Speaker Specific Answering System (Final Year Undergraduate Project)

- Developed a Voice Assistant that takes in audio input from the client and provides relevant output as audio.
- Worked on user authentication through voice commands and also used Voice Activity Detection (VAD) to analyze audio files and extract relevant features from it.
- Implemented state-of-the-art RNN algorithm and used Python for natural language processing, necessary to answer user specific questions.

#### Deepfake Content Detection (Project for Manthan - 21 Hackathon)

- Built a webapp to analyze video, audio and images and identify if they are authentic or deepfaked.
- Implemented Concurrent Neural Networks, Recurrent Neural Networks, Long Short Term Memory (LSTM).
- The model was able to achieve an accuracy of 93%.

### Data Analyzer (Project for hackUMBC Hackathon) - Devpost

- Built a Data Analyzing Platform that can process, visualize and transform data for statistical analysis.
- Data Analyzer is built using Python, Jupyter Notebook and Streamlit API.

# Face Mask Detection (Project for MHacks 14 Hackathon) - Devpost

- Developed a webapp that detects the presence of face masks on humans using Computer Vision.
- Detects Face Mask on images as well as live feed.
- This project is built using Python, Jupyter Notebook, Streamlit API and WebRTC.

# Crowd Counting Challenge (Project for Deepblue Hackathon) - Github

- This project uses live CCTV footage to detect the headcount of people at a particular place.
- It is also equipped to use multiple CCTVs to cover one single area and avoid blind spots.
- Accuracy of detection is 96%

## Patient Appointment Portal (Project for HackwithCW Hackathon) - Github

- Developed an online portal that allows doctors to schedule online slots as per their schedule. It also allows patients to book their appointments with the doctor either virtually or at the clinic.
- This portal was developed using JavaScript, MySQL, PHP Framework Laravel and JQuery.
- Added a payment gateway using PayPal.

## Care-4-U (Project for Hackathon) - Github

- Built a counselling website for Innovathon 21 Hackathon.
- Used Django Framework along with web development technologies and MongoDB as database.

#### Baked In Bombay - Github

- Developed an E-Commerce site for buying and selling homemade baked products.
- Used Laravel Framework along with web development technologies.

#### EXTRA CURRICULAR AND VOLUNTEERING

- Volunteered for Nanjil Anand Foundation NGO as a volunteer. I worked on various assignments including Tree Plantation Drive, Animal Feeding, and Waste Water Recycling for one month.
- Volunteered at Safecity NGO as a volunteer and participated in their Daan Utsaav drive that worked towards spreading
  awareness against crimes such as harassment, robbery, cyber bullying and assault for 15-days and our job was to
  document people's experience in order to determine potential hotspots of these crimes.
- Worked as a social media volunteer at Nurturing Lives NGO and contributed for their project Ekaasathe for a month.
- Jt. Publicity Head at Students' Council of KJ Somaiya College of Engineering and Information Technology.
- Publicity Head at Institute of Electrical and Electronics Engineers (IEEE).

# **SKILLS**

- Programming Languages: C#, Python, PHP, SQL, MongoDB.
- Frameworks: Tensorflow, Sci-Kit Learn, Pytorch, OpenCV, NLTK.
- Web/App Development Technologies: HTML, CSS, XML, JavaScript, JQuery, Laravel, Flask, Streamlit.