# RAHIL KADAKIA

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**EDUCATION** 

### **Dwarkadas J. Sanghvi College of Engineering**

**Expected: June 2022** 

Candidate for Bachelor of Engineering, Computer Engineering with CGPA of 9.34/10. Among the top 5% of the class.

## PROFESSIONAL EXPERIENCE

Collabera October 2020 - Present

Data Scientist and Software Developer

Collabera is a service based company and is one of the largest diversity IT staffing firms in the industry.

**Project 1:** Resume Parser Service and Requirements Matching Engine

- Developed an NLP based AI Engine for Resume Parsing using SpaCy which generates a Convolutional Neural Network (CNN).
- Performed data pre-processing, created documentation, Dockerized and hosted an annotation tool on a server, and led a team to annotate over five thousand resumes collaboratively, in real time.
- Developed Flask APIs which expose the CNN model to the application consuming the AI Engine in real time using ESB (Enterprise Service Bus). Dockerized the project and hosted it on Kubernetes, and gained exposure to CI/CD pipelines in Azure DevOps.

**Project 2:** Requirements Classification Engine

- Developed an SVM classification model using scikit-learn, implemented Pattern Matching to effectively map various Categories and Subcategories, and further developed a ranking system to successfully categorize the data and eliminate discrepancies.
- Performed statistical analysis on the model output and improved functionalities of the developed software.
- Created clusters to automate the formation of keywords and patterns used for mapping.

#### **Project 3:** Job Board Integration

- Developed a Web Scraping Bot using Selenium to scrape data from multiple Job Boards for Requirement Matching.
- Dockerized the application, and parsed the returned data through the Resume Parser Service for indexing into the database.
- Created an end-to-end platform by integrating Flask APIs with Angular Frontend, to provide end users with the required data.

DJ Unicode August 2019 - July 2020

**Backend Developer** 

**Project 1:** Salesperson Tracker

- Developed and worked on collaborative open-source projects as a backend developer, with Django as the REST Framework.
- Created REST APIs and integrated them with React Frontend. Worked in a team to produce a web service where the salesperson's inventory and sales could be tracked and synced with respect to the warehouse stock.

# ACADEMIC PROJECTS AND RESEARCH EXPERIENCE

#### Micro Expressions Analysis | Bachelor of Engineering (BE) Project

Sept 2021 - November 2021

- Extended work on the Micro Expression Detection Model by implementing **XAI**, to help the end users comprehend and trust the working of the 'Black Box' i.e., AI. The model was made interpretable to explain in depth, the reason for the prediction.
- Developed a platform using Flask APIs and React Frontend to host the model, and to make it accessible to users in real-time.
- Currently drafting a technical research paper on the basis of the results obtained from this project.

# Comparative Analysis of Micro Expression Recognition using Deep Learning and Transfer Learning

May 2021 - Sept 2021

- Created a Deep Learning model and implemented Transfer Learning to train the neural network, to classify Micro Expressions.
- Published a Technical Research Paper in the 2021 2<sup>nd</sup> Global Conference for Advancement in Technology (GCAT), in the IEEE Xplore Library indexed by Scopus Database (DOI: 10.1109/GCAT52182.2021.9587731, Electronic ISBN: 978-1-6654-1836-2).

# Scrambling and Diffusion Based Encryption Algorithm

March 2021 - May 2021

- Created a novel Encryption Algorithm based on the concept of Chaos Theory and developed a novel pixel scrambling technique.
- Submitted a Research Paper titled 3DL-PS: An Image Encryption Technique using 3D Logistic Map, Hashing Functions and Pixel Scrambling Techniques to International Journal of Computational Science and Engineering, and now awaiting acceptance.

# **CollegeSpace - A Social Media Platform for Colleges**

Oct 2020 - Nov 2020

- Created a social media web service exclusively for college students, with Node.js, CSS and Bootstrap as the technology stack.
- Portal acted as a hub for students, for Q&A, casual discussions, forums and timely college updates.

#### Stock Market Prediction using LSTM Architecture

March 2020 - April 2020

• Created a Neural Network using stacked LSTM architecture, and trained it on the data from the **Money Control** APIs to create a regression graph and predict possible variations in stock prices over a given period of time. This was hosted on Django Backend.

## **TECHNICAL SKILLS**

- Programming Languages: Python, R, Java, C, C++.
- Machine Learning: TensorFlow, Keras, SpaCy, NLTK, scikit-learn, OpenCV, NumPy, Pandas, Matplotlib, seaborn.
- Web Technologies: Flask, Django, Angular, React, PHP, HTML, CSS, Bootstrap, JavaScript, MySQL, Azure DevOps, Heroku.
- Other: Docker, Kubernetes, Git, Algorithms, Data Structures, scikit-fuzzy, MATLAB, Scrapy, Selenium, BeautifulSoup.

# **EXTRACURRICULAR ACTIVITIES**

- Volunteered in an NGO called **Hamari Pahchan** as a part of the Digital Media Marketing Team, where my main task was to gather funds and to create and circulate posters on various social media platforms, and raise awareness.
- Qualified to the eliminator round in DJ-Codestars Code Uncode, a Competitive Coding Competition.
- Participated in DJ-CSI Codeshastra Hackathon and created a website for an NGO, accessible to all.
- Participated in DJ-ACM LOC 3.0 Hackathon and created a Fantasy League Platform using Django, Bootstrap and CSS.