RAHIL KADAKIA

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EDUCATION

New York University Graduate School of Arts and Science (NYU GSAS) ***Expected - December 2024***
Master of Science in Computer Science (MS CS).

Dwarkadas J. Sanghvi College of Engineering ***June 2022***
Bachelor of Engineering, Computer Engineering with CGPA of 9.41/10. Among the top 5% of the class.

PROFESSIONAL EXPERIENCE

Digital Ripples **June 2022 - December 2022**
Software Developer (Consultant)
Project 1: *HAL: MIS Virtual Assistant ChatBot*

- Developed a chat bot using Microsoft Bot Framework with technology stack as Node.js and the channel used was Microsoft Teams.
- Integrated *LUIS* into the chat bot for interpreting user query, identifying the intent of the utterance, and processing the request.
- Had heavy interaction with Amazon S3, Amazon RDS, Azure DevOps, CI/CD pipelines, Azure Bot and Azure Web App throughout the project.

Collabera Digital **October 2020 - January 2023**
Associate Software Developer
Project 1: *Resume Parser Service and Requisition Matching Engine*

- Developed an NLP based AI Engine for Resume Parsing using SpaCy - which generates a Convolutional Neural Network (CNN).
- 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.
- Additionally, developed a high level design of the project and led a team of 8 members to annotate over 5000 resumes collaboratively.

Project 2: *Requisition Classification Engine*

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

Project 3: *Job Board Integration*

- Developed a Web Scraping Bot using Selenium to scrape data from multiple Job Boards and created Flask APIs to clean and serve the fetched data. Further, the cleaned data was parsed through the Resume Parser Service for indexing into the database.
- Created an end-to-end platform by integrating Flask APIs with ASP.NET Core and Angular Frontend, and hosted the Dockerized app on AKS.

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

Analysis of Micro Expressions using XAI | 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.
- Submitted a Technical Research Paper in the **2022 IEEE International Conference on Computing, Analytics and Networks**, which has been published in the **IEEE Xplore Library**, indexed by **Scopus Database (DOI: 10.1109/ICAN56228.2022.10007340)**.

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.
- Submitted a Technical Research Paper in the **2021 2nd Global Conference for Advancement in Technology (GCAT)**, which has been published 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 media Encryption Algorithm based on the concept of Chaos Theory and combined it a novel pixel scrambling technique.
- Drafted a Research Paper- **3DL-PS: An Image Encryption Technique using 3D Logistic Map, Hashing Functions and Pixel Scrambling Techniques (DOI: 10.1504/IJCSE.2022.10049693)** that has been accepted in the **International Journal of Computational Science and Engineering (IJCSE)**.

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 developed using Django REST APIs.

TECHNICAL SKILLS

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

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.