PREM CHAND MARGANI

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Education

National Institute of Technology Karnataka, Surathkal **2020 − 2024**
B Tech Electronics and Communication Engineering *CGPA 7.93*

Narayana Junior College **2017 − 2019**
Intermediate MPC *CGPA 9.69*

Vijaya Sri Sunflower EM High School **2006-2017**
SSC *CGPA 10*

Experience

CHANGEPAY MMS TECHNOLOGIES **July 2023 − August 2023**
Software Developer Intern - Python, Flask, Rpi, Remote IoT, cloud
- Led the optimization of a Python Flask application hosted on a Raspberry Pi, achieving substantial improvements in performance and efficiency.
- Diagnosed and resolved performance bottlenecks, enhancing response times and resource utilization by optimizing CPU and memory management.
- Implemented advanced server optimization and asynchronous processing techniques, ensuring seamless application performance on limited hardware.

National Insitute of Technology Karnataka **September 2023 − October 2023**
Research Intern - Machine Learning, Image Processing, NLP, Python
- Collaborated with NITK IT professor to create an Image Captioning model using VGG16 and the Flickr8K dataset.
- Led the development of an Image Captioning solution from scratch, combining VGG16 for image features and LSTM for caption generation.
- Executed complete model pipeline, including data preprocessing, VGG16 integration, and LSTM sequence generation for context-aware captions.
- Gained proficiency in Python, TensorFlow, Keras and cross-disciplinary collaboration, enhancing expertise in computer vision and natural language processing.

Projects

Negative Comment Detection Over Social Media | *NLP, Machine Learning, Python* **April 2024**
- Developed a multi-lingual model to detect homophobic and transphobic comments across various social media platforms.
- Employed oversampling techniques for dataset augmentation and to address dataset imbalance post-preprocessing and cleaning, improving model performance.
- Researched and implemented machine learning algorithms across various languages, integrating advanced NLP models like m-BERT and xlm-RoBERTa.
- Achieved high accuracy in detecting homophobic and transphobic comments on social media, contributing to a safer online environment.

DataBase creation for ICC torunament | *SQL,RDBMS* **November 2023**
- Designed and implemented a comprehensive ICC database for efficient data management using SQL.
- Established a structured repository for player, tournament, and match information.
- Implemented the schema as a Oracle database.
- Enhanced data organization and accessibility, streamlining ICC operations.

Company Information Scrapper and Analysis | *Python, Jupyter Notebook, Web Scraping, Excel* **April 2022**
- Developed a web scraper tool using Python to extract information about various companies from Crunchbase.
- Retrieved information like company description, sector, industry, funding, products/services, and competitors.
- Organized and structured the collected data into a clean and insightful format, utilizing Pandas for data manipulation and Excel for output storage.

Technical Skills

Languages: C, C++, Python, SQL, Excel, Matlab, Verilog
Developer Tools: Jupyter Notebook, VS Code, AWS Console, Tableau
Areas of Interest: Machine Learning, Data structures, Algorithms, DBMS, OOPS, AWS, Data Analytics, Web scraping
Operating Systems: Windows, Linux

Activities

- THE INSTITUTE OF ENGINEERS(IE) NITK CHAPTER - Executive Member.
- IE Summer Mentorship Program - Mentor.
- Volunteered for Phoneix-Floodlight sports Competition
- Volunteer Member at NITK Technical Fest ENGINEER.

Achievements

- Secured First place in BHARATH DHARSHAN, a cultural Fest organized by DDFC club, NITK
- Successfully completed the course The Joy of Computing Using Python with consolidated score of 87% offered by NPTEL.