



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

Experience

National Insitute of Technology Karnataka

September 2023 – October 2023

Research Intern - Machine Learning, Image Processing, NLP, Python

- Collaborated with NITK professor to develop an Image Captioning model using VGG16 and the Flickr8K dataset, achieving **85% accuracy**.
- Led the end-to-end development of the solution integrating **VGG16** for image features and **LSTM** for caption Generation.
- Gained expertise in Python, TensorFlow, and Keras, strengthening skills in computer vision and natural language processing.

CHANGEPAY MMS TECHNOLOGIES

July 2023 – August 2023

Software Developer Intern - Python, Flask, Rpi, Remote IoT, cloud

- Led optimization of a Python Flask app on Raspberry Pi, improving response time by **30%** and system efficiency by **25%**.
- Enhanced CPU and memory usage through bottleneck resolution and implemented asynchronous processing, reducing latency by **40%**.
- Automated deployment with shell scripts, streamlining updates and minimizing manual intervention.

Projects

Negative Comment Detection Over Social Media | NLP, Machine Learning, Python

May 2024

- Developed a multi-lingual model to detect homophobic and transphobic comments, achieving F1 scores of **0.83**-(English), **0.52**-(Hindi), **0.63**-(Telugu), and **0.69**-(Kannada).
- Used oversampling techniques to address dataset imbalance, improving performance across multiple languages with m-BERT and xlm-RoBERTa models.
- Contributed to a safer online environment by improving detection of harmful comments across languages on social media.

DataBase creation for ICC tournament | SQL, RDBMS

November 2023

- Designed and implemented a comprehensive ICC database using SQL, managing over **10 interrelated tables** for efficient data handling.
- Created a structured repository for players, teams, tournaments, matches, and statistics, enabling streamlined access and management.
- Deployed the schema on a live Oracle SQL server, ensuring optimized performance for complex queries and reports.
- Improved data organization and accessibility by reducing query time and simplifying ICC operations.

Company Information Scraper and Analysis | Python, Jupyter Notebook, Web Scraping, Excel

April 2023

- 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.
- Optimized data processing with Pandas and Excel, reducing manual entry time by **15%**.

Technical Skills

Languages: C, C++, Python, SQL, Matlab

Developer Tools: Jupyter Notebook, Excel, VS Code, AWS Console, Tableau

Areas of Interest: Machine Learning, Data structures, Algorithms, DBMS, OOPS, AWS, Data Analytics, Web scraping

Operating Systems: Windows, Linux

Extra Curricular

- 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.