

Moirangthem Gelson Singh

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 [LinkedIn](#)  [GitHub](#)  [LeetCode](#)  [Portfolio](#)

PROJECTS

BookBuddies

- Created a user-friendly **Flask** web application which allows users to input preferences and receive **book recommendations**
- Used the book-crossing dataset which consists of three tables, books, users and ratings
- Utilized cosine similarity for **collaborative filtering** based on book ratings to predict 4 most similar books to the input
- Implemented **Natural Language Processing** (NLP) techniques, including text cleaning and tokenization, for effective user query processing
- Integrated **fuzzy matching** to handle variations in user input and identify the closest matching book titles
- Deployed the system on **EC2** instance of **AWS**

NeuroAI

- Designed and developed a web application for brain tumor detection using **FastAPI** framework
- Implemented transfer learning by using the pre-trained **VGG model** in **PyTorch** to extract features from MRI images
- Used **RFE** for feature selection
- Performed **hyperparameter tuning** using grid search on SVM and used it for classification
- Displayed the prediction result on the website with **clear and intuitive UI**

Little Lemon API

- A Restaurant API project built using **Django REST Framework**
- Added functionalities such as **searching, filtering, ordering, and pagination**
- Optimized the API performance using **caching** techniques
- Implemented **user roles** with token-based authentication
- Throttling** for controlling API access
- Integrated **Djoser** library for **improved authentication** endpoints
- Secured the API endpoints using **JSON Web Tokens**

RESEARCH / PUBLICATIONS

1. Moirangthem Gelson Singh et al., "**Neuro-oncological Investigation of MGMT and Overall Survival of GBM Patients using Parallel Deep Learning Framework and MRI**", IEEE Transactions on Artificial Intelligence (communicated)

TOOLS

- Python
- TensorFlow
- Flask
- Selenium
- PyTorch
- NLTK
- Django
- FastAPI
- AWS
- SQL
- Git
- GCP
- Numpy
- Pandas

SKILLS

- Data Visualization
- Algorithms
- Regression
- Transformers
- Reinforcement Learning
- LLM
- Computer Vision
- Linear Algebra
- Time Series Analysis

EDUCATION

M.Tech. (CSE) CGPA - 9.36/10
IIIT-Bh
(2021-2023)

B.E. (CSE) CGPA - 8.68/10
SIT, Tumkur
(2016-2020)

CERTIFICATIONS

- [AWS S3 Basics](#)
- [Test Automation using Selenium and TestNG](#)
- [Google Cloud Big Data and Machine Learning Fundamentals](#)