Pranav Balaji

Personal Website | LinkedIn | GitHub
pranavbalaji2@gmail.com | (+91)9573033515 | f20190040@hyderabad.bits-pilani.ac.in

EDUCATION

BITS PILANI
B.E. Comp. Sci. & Eng.
2019 - 2023 | Hyderabad, India

COURSEWORK

UNDERGRADUATE
Data Structures and Algorithms
Machine Learning
Natural Language Processing
Information Retrieval
Computational Neuroscience
Bio Inspired Algorithms
Database Systems
Computer Graphics
Object Oriented Programming
Quantum Info and Computing

SKILLS

PROGRAMMING
Languages:
Python • C++ • SQL
MATLAB • GLSL
Tech stack:
PyTorch • NumPy • Pandas
Dask • MySQL • Flask
React.js • OpenGL

CERTIFICATIONS

MACHINE LEARNING
Coursera | 11 weeks | MATLAB

DEEP LEARNING
Coursera | 17 weeks | TensorFlow

GANS
Coursera | 4 weeks | PyTorch

EXTRA-CURRICULARS

CLUBS
Sanskrit and Foreign Langs.
• Japanese div. Member | 2019 - 2020
• Japanese div. Lead | 2020 - 2021

HOBBIES
Scuba diving (Advanced Open Water
PADI certified) • Origami •
Speedcubing

WORK EXPERIENCE

ML INTERN | Wadhwani AI
Apr 2022 - July 2022 | Summer Internship

- In partnership with the Indian Central TB division
- Worked on the Tuberculosis Adherence project which aims at predicting treatment outcomes for patients
- Worked on encoding schemes of categorical data
- Addressed the loss-metric mismatch and explicitly optimized models on the required metric
- Experimented on the extent of adversarial effects upon gradual data corruption

PROJECTS

SIGN LANGUAGE TRANSLATION | NLP • DL • Computer Vision
March 2022 – Apr 2022 | PyTorch • Transformers • Huggingface

- Led a team of 6 for the project
- Processed video sequences containing German Sign Language and produces translated German text
- Heavily fine-tuned the pre-trained T5-small model to leverage its existing German knowledge
- GitHub Repository: //Sign-Language-Translation

PARAPHRASE GENERATOR | NLP • DL • Continual Learning
Oct 2021 - Dec 2021 | PyTorch • Transformers • Hugging Face

- Continual Learning using Elastic Weight Consolidation
- Fine-tuned the Pre-trained T5 transformer model for paraphrase generation
- Significantly reduced catastrophic forgetting on pre-trained tasks after fine-tuning
- GitHub Repository: //Transformer-Continual-Learning

DODO SHOWS | Full Stack Web App
Feb 2021 – Apr 2021 | Flask • MySQL • React.js • Heroku

- Led a team of 4 for the project
- Incorporates functionality of IMdB and BookMyShow; Movie booking with categorical (private/public) list management
- Ability to add friends and leave reviews
- GitHub Repository: //dodoshows-src
- The website is no longer up after Heroku ended the free product plans :(

COMPETITIONS

HACKON WITH AMAZON | 1ST Position Nationwide
June 2021 | TensorFlow.js • WebRTC • Node.js • MySQL • Heroku

- A game-ified virtual fitness application designed for lockdown times
- Real-time Machine Learning on the webcam feed for posture identification
- Video call system with live ranking against a friend
- GitHub Repository: //vFit