Peya Mowar

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Academic Details

BTech, Information Technology	Delhi Technological University	2017-2021	9.12/10.00
CBSE-AISSCE (Std. 12th)	Ahlcon Public School, Delhi	2016-2017	93.6%
CBSE-AISSE (Std. 10th)	Delhi Public School, Noida	2014-2015	10.0/10.0

Work Experience

➤ Research Fellow at Microsoft Research India (November 2021 - Present)
- Pursuing research in AI for Social Good - reimagining education for marginalised and emergent users
- Digitising regional language newspapers, books and other printed material (Including building an Indic-OCR, Machine Translation System, Document Understanding)
- Working on an intersection of Natural Language Processing, Computer Vision and Human-Computer Interaction
- Sending out the accessible content to 27 Visually Impaired users in India for validation

➤ Technology Analyst at Morgan Stanley (August 2021 - October 2021)
- Part of the Technology Analyst Program Cohort'21
- Attended trainings by Mallon Associates on various technologies and languages

➤ Undergraduate Research Intern, Trinity College, Dublin, Ireland (January 2021 - Present)
- Researched under Professor Khurshid Ahmad on Financial Sentiment Analysis
- Collected national political news articles from Dainik Jagran (Hindi) newspaper
- Analyzed the impact of sentiments associated with these articles on the BSE SENSEX
- Currently writing a research paper on the same

➤ Technology Analyst, Morgan Stanley (May 2020 - July 2020)
- Worked as part of IST division to transform and load securities data into proprietary databases
- Injected and mapped data using Java Spring backend, KAFKA, MongoDB, and Sybase
- Created a GUI for tracing data lineage using Angular frontend in TypeScript
- Explored the scope for containerization of components using Docker
- Result: Significant improvement in the efficiency of loading vendor data

➤ Data Analyst Research Intern, IIT Delhi TBIU (November 2019 - December 2019)
- Researched under Dr. Sarita Ahlawat to predict PM 2.5 levels in a local mapped area
- Implemented spatial interpolation algorithms such as Kriging, IDW, Spline, and TIN in Python
- Analyzed the results by creating 3D heat maps using the Mayavi library in Python
- Outcome: Gave insights about where and how many more sensors to place to improve accuracy

➤ Summer Intern, Spice Digital Ltd (June 2019 - July 2019)
- Built a Web API for a chatbot using NLP and Deep Learning models
- Used the Artificial Intelligence Markup Language, OS, and Flask libraries of Python

Academic Projects

➤ Detection of Clickbaits in Social Media: Twitter and Instagram (Major Project - I)
- Worked under Dr. D.K. Vishwakarma to detect clickbaits (misleading posts generated to lure users)
- Created a stacking classifier architecture for the detection of visual clickbaits
- Presented a conference paper in CISS'2021 held at Johns Hopkins University for the same
  - Paper Link: Clickbait in Social Media (IEEE Xplore)

➤ Clickbait Prevention on YouTube (Major Project - II)
- Developed a multi-classification, multi-lingual clickbait detection and prediction model for YouTube
- Created a Bollywood specific clickbait video dataset

- Journal paper on this project is currently under peer review at ACM Transactions on Intelligent Systems
  - Preprint Link: https://arxiv.org/abs/2112.08611

➤ Emotion Detection from Images and Videos (Minor Project)
- Researched under Dr. D.K. Vishwakarma to detect and classify emotions in Python
- Created a dataset of 100,000+ labeled images from Bollywood movie trailer videos
  - Github Link: EmoGDB Dataset
- Performed data cleaning, annotation, facial detection and extraction, keyframe extraction
- Predicted emotions using VGG16, RESNET v2, CNN with BiLSTM layers and compared their efficacies

➤ Detection of Phishing Websites (Independent Project) (Recorded Presentation)
- Curated a dataset of 19,400 phishing and 19,400 legitimate URLs for carrying out a large-scale study
- Extracted list-based, content-based, fuzzy rule-based, and URL-based features for each website
- Conference paper published in CyberSA 2021
  - Dataset Link: 10.5281/zenodo.5807621
  - Paper Link: Fishing Out the Phishing Websites (IEEE Xplore)

➤ Divya Drishti for the aid of visually challenged (Independent Project)
- Devised a project for the blind to help them navigate in the PayTM Build for India hackathon
- Implemented facial and object recognition and detection in Python
- Incorporated an ultrasonic sensor in the model using Arduino
- This project was showcased in the Times of India newspaper

RELEVANT COURSES

Object-Oriented Programming	Operating Systems	Artificial Intelligence	Network Security
Computer Networks	Compiler Design	Discrete Mathematics	Computer Architecture
Swarm and Evolutionary Computing	Malware Analysis	Theory of Computation	Software Engineering
Data Structures and Algorithms	Data Mining	Database Management	Machine Learning

SCHOLASTIC ACHIEVEMENTS

- University Rank 1 in 6th Semester - 10.00/10.00 SGPA (2020)
- AIR 4065 in JEE Mains and AIR 9056 in JEE Advanced (2017)
  - 99.67 percentile in JEE Mains out of 1,100,000+ students
- Gold Medal for academic excellence for being a scholar for six consecutive years (2016)
- Letter of Appreciation from HRD Minister of India (2015)

CO-CURRICULAR ACTIVITIES

- Director of Meets, Rotaract Club of DTU Regency
  - Responsible for arranging the meetings, minutes of meetings, and planning fellowships
  - Visit an NGO called Gyankunj regularly to give cyber education to needy and bright young minds
  - Organized many events like the Diwali Mela, Blood Donation Camp, and Book Donation Drive
- Design & Creative Head, Society of IT Engineers
- Event Head - organized various events in Invictus - the annual tech fest of DTU
- Part of the Women's badminton sports team of DTU
- IIT-JEE Mathematics Educator at Unacademy and Content Writer at OpenGenus