Manan Suri

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EDUCATION

Netaji Subhas University of Technology, New Delhi   Dec 2020 - Present
- *Bachelor of Technology - Computer Science and Engineering*
  CGPA: 9.12

K.R. Mangalam World School, New Delhi   Grad March 2020
- *Higher Secondary Education*
  Class 12th - 97.2%, Class 10th - 96.6%

TECHNICAL SKILLS

- **Languages**: Python, Java, C++, C, Javascript,HTML/CSS, SQL
- **Skills**: Machine Learning, Deep Learning, Natural Language Processing, Full Stack Web Development, Database Management
- **Tools & Technologies**: Scikitlearn, Pytorch, NumPy, Pandas, Flask, Node, React, Express, MongoDB, MySQL

EXPERIENCE

University of Warwick, United Kingdom   June 2023 - Present
- *Data Science for Social Good Fellow*
  - Constructed advanced, replicable pipelines for training, experimentation, and inference, leveraging Deep Learning to devise an innovative system that identifies and mitigates greenwashing in multi-modal social media content, spanning text, video, and image elements.
  - Worked in close collaboration with the Algorithmic Transparency Institute and environmental specialists to understand project needs. Developed tailored strategies to promote the use of ethical and transparent algorithms crucial in combating greenwashing and supporting sustainability in the digital content space.

Scalenut, New Delhi, India   Dec 2022 - Jan 2023
- *Data Science Intern*
  - Lead the development of advanced analytical tools leveraging Large Language Models (LLMs), notably designing a high-performing fact annotator to enhance the capabilities of the Cruise Mode product.
  - Initiated and successfully implemented optimization strategies for document ranking and retrieval functions, resulting in improved accuracy and efficiency across multiple products.

PUBLICATIONS

- **ACLM: Selective-Denoising based Generative Data Augmentation for Low-Resource Complex NER**: Deep Learning, NLP, BART (ACL 2023)
  - In the context of Complex Named Entity Recognition (NER), created ACLM, a novel data augmentation approach aimed at conditional generation to cope with data scarcity in low-resource complex NER.
  - Successfully addressed the context-entity mismatch issue, common in existing NER data augmentation techniques. ACLM builds on BART and is refined based on a novel text reconstruction / denoising task using selective masking to preserve named entities and contextually relevant keywords in the input sentence.
  - Achieved superior performance than the existing models, managing an increase in effectiveness by a significant margin of 1%-36% across various low-resource settings for monolingual, cross-lingual, and multilingual complex NER.

    Publication accepted at ACL 2023

    GitHub : MananSuri27/ACLM

- **Patronising and Condescending Language Detection**: Deep Learning, NLP, Transformers (NAACL 2022)
  - Patronizing and Condescending Language (PCL) in the context of vulnerable communities refers to language that portrays a sense of superiority or has a tendency to view communities with a pitiful and passionate lens.
  - The approach involved finetuning on pre trained models- BERT, ALBERT, DistilBERT, RoBERTa and working with token separated metadata. This project also explored different class imbalance techniques.
  - Ranked amongst the top 50% of participants, achieving an F1 score of 0.513.

    Publication accepted at NAACL 2022

    GitHub : MananSuri27/PatronisingAndCondescendingLanguage

Projects

○ **Asatya — Fake News Browser Extension**: Machine Learning, NLP, Web Scraping, Web Development
   * Developed a robust suite of machine learning-based tools aimed at combating the spread of fake news.
   * Designed the system to generate key metrics for any given news item, including measures of reliability, biasness, and objectivity. Additionally, implemented functionality to provide users with a concise summary of the news report and recommendations for similar yet reliable news headlines.
   * Tech Stack - *Flask, beautifulsoup4, pandas, tinydb, scikitlearn, joblib, react* (January '22)

○ **Article — Comprehensive NLP Suite for Web Article Analysis**: Machine Learning, NLP, Web Scraping, LLM Deployment
   * Developed an innovative tool for extracting and structuring information from web articles, utilizing heuristic techniques and a wide array of NLP techniques such as Entity Recognition, N-gram analysis, keyword extraction, extractive summarization and text classification for comprehensive article analysis.
   * Incorporated advanced features like similar data mining, media bias detection, factuality checks and querying with Language representation models, providing a powerful content verification apparatus and enabling a broad range of media research applications.
   * Tech Stack - *Flask, beautifulsoup4, pandas, RAKE, YAKE, scikitlearn, joblib], OpenAI* (February'23)

Awards and Achievements

- Research papers accepted at top conferences including **ACL**, **AAAI** and **NAACL**.
- **Adobe Career Academy** - Selected to be a part of the first Adobe Career Academy cohort by Adobe India.
- **TechForGood Hackathon** - Won **First Prize** amongst 3000 participants from over 36 countries.
- **KVPY** - Secured **AIR 159** amongst 150k students and was offered the fellowship by IISc Bangalore
- **JEE Advanced** - Secured **AIR 4290** among 150k students qualified from 1.5 million initial applicants
- **JEE Mains** - Secured **AIR 7172** among 1.5 million students with a percentile of 99.36.
- **Student of the Year, 2019** - Awarded by the **Times of India**, India's leading newspaper publication.
- **Chairman's Medal** for exemplary performance in academics throughout grades VI-XII.

Extra-Curricular

- Technical articles on Machine Learning and Artificial Intelligence on my medium blog.
- Coordinating Project Agni which aims to build products by upcycling firehoses and empowers women in the process.
- Director, Technical at Enactus NSUT.
- Parliamentary Debating Mentor at The Debating Society of NSUT.
- Head Boy 2019-20, K.R.Mangalam World School.
- Founding President of TED-Ed Club 2018-19, K.R.Mangalam World School.