SUPRITI VIJAY

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Supriti Vijay ⋄ supritivijay

AREAS OF INTEREST

Natural Language Processing, Deep Learning, Explainable AI, Social Network Science

EDUCATION

Manipal Institute of Technology, Manipal *July 2019 – Present*
B.Tech in Computer Science and Engineering
CGPA: ***9.12***

CBSE, Maharaja Sawai Man Singh Vidyalaya 2019
Overall Percentage: ***94%***

CBSE, Maharaja Sawai Man Singh Vidyalaya 2017
Overall CGPA: ***10***

EXPERIENCE

MITACS Globalink Research Intern *Upcoming*
Lakehead University, Ontario

· Working under the supervision of Professor Amine Trabelsi on mining anti-social behaviour in social media

University of Copenhagen, Denmark *August 2021 – Dec 2021*
Research Intern

· Currently working on a collaborative research project under the supervision of *Dr Saurabh Aggarwal* to summarize text from a question-answering platform.

Agency for Science, Technology and Research (A*STAR), Singapore *Jul 2021 – Dec 2021*
Research Intern

· Worked on a research project under *Dr Saurabh Aggarwal* to develop a method to extract positive and negative connections from online social networks.

The Research Society MIT *Feb 2021 – Present*
General Secretary

· The Research Society MIT is an organization that focuses on the research in different fields, both interdisciplinary and otherwise.
· Co-organized Cognizance, an initiative aiming to connect students from different streams and promote research in modern areas by exposing them to experts from diverse backgrounds. Had 800+ registrations for the event.
· Currently mentoring 30+ students in the Artificial Intelligence and Computer Science domain

Association for Computing Machinery(ACM and ACM-W) *August 2020– Present*
Core Committee Member

· Head of the Data Science Study Group which includes conducting meetings and workshops of people who want to either start their journey or explore more in the field of Data Science.
· Co-started and supervised awareness programs about the available opportunities for Women in Tech inclusive of diversity programs, open hiring challenges and upskill training.

PUBLICATIONS

"Something Something Hota Hai!" An Explainable Approach towards Sentiment Analysis on Indian Code-Mixed Data*(Accepted at the Workshop on Noisy User-generated Text (W-NUT), EMNLP 2021)* **(Link)**

In this paper, we propose a methodology to integrate explainable approaches into code-mixed sentiment analysis. By interpreting the predictions of sentiment analysis models we evaluate how well the model is able to adapt to the implicit noises present in code-mixed data.

Detecting Gender Bias using Explainability ***(Accepted at the Widening Natural Language Processing (WiNLP) workshop, EMNLP 2021)***

In this paper, we utilize explainable AI frameworks to detect an established bias trend for masculine, feminine, and neutral gender signals in sentiment analysis.

ExCode-Mixed: Explainable Approaches towards Sentiment Analysis on Code-Mixed Data using BERT models **(Link)**

This paper discusses the importance and practicality of explainable AI frameworks, LIME and SHAP on code mixed sentiment analysis.

PROJECTS

Sentiment Analysis using Transformers and BERT (PyTorch) *(Apr 2021)*

Using the IMDB Dataset, the performances of a BERT Model, a BERT model with an extra attention layer and a simple CNN model, were analysed on sentiment analysis of textual data. All of these models were coded from scratch. The accuracy obtained from a BERT Model with an extra attention layer was significantly better as compared to the workings of a normal BERT model and CNN.

Sales Prediction with time series analysis and forecasting (Tensorflow) *(September 2020)*

This is a Data Science project using C1 Company sales data. This project consists of data analysis, model definition and model training and evaluation using various data science packages to analyse and predict the sales of a toy manufacturing company using time-series analysis and forecasting. The project work involves the implementation of different types of models including ARIMA, XGBoost etc. The best model, i.e. ARIMA returned an RMSE score of **1.13**

Predicting the price of used cars *(June 2020)*

Using the dataset on Kaggle, the price of used cars were predicted through models of machine learning after cleaning, preprocessing and exploring the data given. Various models including Linear Regression, Support Vector Machine and Random Forest Regressor were used to get a test accuracy of **90.19%**

TECHNICAL SKILLS

Programming Languages/Tools	Python, Java, C, SQL, LaTeX, C#, Shell Scripting(Git & Bash)
Libraries/Frameworks	PyTorch, Tensorflow, Numpy, Matplotlib, Flutter, Unity
Languages	English, Bahasa Indonesia, Malay, Hindi

COURSEWORK

- Deep Learning Specialization from Coursera
- Machine Learning by Stanford
- Microsoft Technology Associate Certification in Introduction to Programming in Python
- Introduction in C# and Unity

ACHIEVEMENTS AND VOLUNTEERING EXPERIENCE

- Adobe India Women-in-Technology Scholar 2022 (Link)
- Dramatics and Theatre
  - Won first prize in Street Play Category in Vibrance, the cultural fest at Vellore Institute of Technology, Chennai (Jan 2020).
- Working with NGO Disha in projects for the welfare of disabled children (2019 - Present)
- GirlScript Foundation Volunteer to help people with less benefits learn coding and Data Structures and Algorithms (Feb 2021)