SUPRITI VIJAY

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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: ***9.06***

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 *July 2022 – Present*
Lakehead University, Ontario

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

Adobe Research *May 2022 – Present*
Media and Data Science Lab Research Intern

· Working under the supervision of *Dr. Chirag Agarwal* and *Shripad Deshmukh* on the explainability of reinforcement learning models

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

· Worked 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 *June 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

1. **Vijay, S.**, Priyanshu, A. NERDA-Con: Extending NER models for Continual Learning — Integrating Distinct Tasks and Updating Distribution Shifts. Accepted at the Updatable Machine Learning Workshop, ICML 2022 (2022). (Link)
2. Priyanshu, A., Vardhan, A., Sivakumar, S., **Vijay, S.** Chhabra, N. "Something Something Hota Hai!" An Explainable Approach towards Sentiment Analysis on Indian Code-Mixed Data. Accepted at Workshop on Noisy User-generated Text (W-NUT), EMNLP 2021 (2021). (Link)
3. Gupta, G., **Vijay, S.**, Ramesh, K. Detecting Gender Bias using Explainability. Accepted at Workshop on Widening Natural Language Processing (WiNLP) workshop, EMNLP 2021 (2021).
4. Priyanshu, A., Vardhan, A., Sivakumar, S., **Vijay, S.** Chhabra, N. ExCode-Mixed: Explainable Approaches towards Sentiment Analysis on Code-Mixed Data using BERT models. (Link)

PROJECTS

TabNAS (Link)*(June 2022)*

Neural architecture search for no code users. We design a Neural network model that can be fed to any kind of tabular dataset. It has been generalized for both classification as well as regression tasks. Benchmarked the model for 3 datasets - two of which are classification tasks (Adult Income dataset, Car dataset) while the other is regression (Housing Prices dataset).

NERDA-Con (Link) *(Apr 2022)*

Python library encompassing a pipeline for training Named Entity Recognition (NER) with Large Language Models bases by incorporating the concept of Elastic Weight Consolidation (EWC) into the NER fine-tuning NERDA pipeline. Evaluated over two settings: distribution shifts and distinct tasks. The experimental results on the former shows an increase of 2.67% and and increase of 13.66% in F1 Score as compared to the naive approaches.

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.

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)
- Second Runners up in ShowYourSkill(Coursera) where we participated in the Research Reports Track and creating a NLP augmented Machine Learning Application for women safety. (Link)
- Microsoft Technology Associate Certification for Introduction in Programming using Python (Link)
- Dramatics and Theatre
  - Won first prize in Street Play Category in Vibrance, the cultural fest at Vellore Institute of Technology, Chennai (Jan 2020).
- GirlScript Foundation Volunteer to help people with less benefits learn coding and Data Structures and Algorithms (Feb 2021)