Anirudh Vishal Khatry

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EDUCATION

Veermata Jijabai Technological Institute, Mumbai, India (VJTI) **May 2021**
Secured a Bachelor of Technology in Information Technology **(CGPA 8.97/10)**
Relevant coursework: Machine Learning, Data Mining Technologies, Artificial Intelligence, Soft Computing Technologies, DBMS, Cloud Computing, Compiler Design, Software Analysis and Design.

PROFESSIONAL EXPERIENCE

Microsoft, Bangalore, India | Program Synthesis team | *Pre-doctoral Research Fellow* **August 2022 – Present**

- Built and conceptualized the NL to M feature for the Power Query team.
- Coordinated with the PMs and stakeholders at Power Query for successful deployment of the feature in April,2023.
- Worked with various OpenAI models and developed novel techniques for efficient context capturing in resource constraint environments.
- Worked closely with the GSL (Grey Systems Lab) team to deploy the NL to Pandas feature in Data Wrangler.
- Collaborated with the Excel team to build a NL To M backend for the Excel FHL Hackathon.

Microsoft Research Lab, Bangalore, India | AI meets Program Synthesis team | *Research Intern* **July 2021 – July 2022**

- Closely worked with Microsoft Edge team for web-based data extraction tasks to improve product purchasing experience.
- Employed techniques to combat low-resource name entity recognition tasks by employing neurosymbolic approaches for data extraction.
- Devised LRSyn, a state-of-the-art interpretable data extraction framework, robust to version changes in data.
- Spearheaded the clustering and landmark detection tasks, and developed a novel fingerprinting technique for images.
- Successfully published our research paper titled "Landmarks and Regions: A Robust Approach to Data Extraction" at PLDI 2022, San Diego.

Omdena (in collaboration with Human Rights First), Remote | *Machine Learning Intern* **May 2021– July 2021**

- Collaborated with over 30 changemakers globally to develop an MVP for Human Rights First to track war crimes using social media platforms.
- Worked in close collaboration with the data collection team for data cleaning and annotation tasks.
- Recommended various transformer models for sentiment analysis and war crime classification (Binary and Multilabel).
- Deployed a binary classification RoBERTa model to detect war crimes on the HRF AWS server.

Samsung R&D Institute, Bangalore, India | On-Device AI group | *Research Intern* **May 2020– July 2020**

- Teamed with the On-device AI team on multi-agent Reinforcement Learning for various methods to improve collaboration between power and performance agents.
- Implemented the amalgamation of methodologies suggested by various research papers like dynamic reward functions and time awareness.
- Built a Double Deep Q-Network, employing Prioritized Experience Replay.
- Designed a pursuit-evasion simulation game using PyGame for proof of concept.

Pexabyte Technology Solutions Pvt. Ltd., Chennai, India | *Programmer Analyst Intern* **May 2019– July 2019**

- Coordinated with the product development team to build an ERP application for manufacturing and service-based industries. Employed JavaFX for the development of the application and MySQL for database management.

ACADEMIC PROJECTS

Multimodal Detection of Depression

- Developed a machine learning tool that detected the presence of depression in an individual using Audio, Video, and Text features.
- Employed various feature engineering techniques to highlight behavioral aspects and focus on domain-guided learning.
- Proposed an amalgamation of ensemble-based visual model and deep learning-based voice and text models, to develop a state-of-the-art approach with low latency and better metrics.
- Analyzed results across the proposed models from Audio-Visual Emotion Recognition Challenge (AVEC), 2017.

Covid-19 Twitter Sentiment Detector

- Designed a sentiment detection tool that scraped tweets with the covid-19 hashtag and predicted sentiments over them.
- Successfully performed exploratory data analysis and found various underlying trends in data using tools such as heatmaps, histograms, word clouds, etc.
- Proposed an LSTM architecture for the classification task and obtained 90% accuracy in sentiment classification tasks.

TECHNICAL SKILLS

- Programming Languages: Python, Java, C#, SQL (MySQL, Postgres), Javascript, HTML/CSS | Frameworks: Node.js, Django, Bootstrap | Others: Machine Learning, Deep Learning, NLP, PROSE, Computer Vision

EXTRACURRICULAR ACTIVITIES

- Governed delegate affairs and determined rules for MUN as the Director-General, VJTI Model United Nations, 2020.
- Scored teams on parameters like fluency, rebuttals, and specificity as Debate Judge, Hysteria debate competition, 2020.
- Led a team of 30 PR executives and officers to organize guest lectures as Public Relations Head, Pratibimb, VJTI, 2020.