Vijay Murari Tiyyala

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EDUCATION

JOHNS HOPKINS UNIVERSITY   Baltimore, MD
MSE Computer Science   Expected 2023
- Relevant course work: Machine Learning, Deep Learning, Data Science, NLP: Self-Supervised Models, Databases/SQL, Information Retrieval

VELAGAPUDI RAMAKRISHNA SIDDHARTHA ENGINEERING COLLEGE   Vijayawada, India
Bachelor of Technology in Computer Science   2021

TECHNICAL SKILLS

Programming Languages: Expert in: Python - Familiar with: C++
Tools and Frameworks: SciPy, LATEX, PyTorch, SLURM
Database : MySQL
Web technologies: Jekyll, PHP, HTML (and CSS), XML technologies
Skills: Critical thinking, data collection, literature reviews, problem solving, self-management, confidentiality, integrity & patience

EXPERIENCE

Graduate Research Assistant   Baltimore, MD
CENTER FOR LANGUAGE AND SPEECH PROCESSING | JOHNS HOPKINS   June 2023 - Present
- Collaborating with Prof. Mark Dredze on the creation of a chatbot by utilizing the LLAMA language model, initially trained on data sourced from a specific Johns Hopkins University website

Graduate Research Assistant   Baltimore, MD
CENTER FOR LANGUAGE AND SPEECH PROCESSING | JOHNS HOPKINS   April 2023 - Present
- Working alongside Prof. Daniel Khashabi to construct a code editing language model, employing innovative data augmentation methods for data production and model training

Graduate Research Assistant   Baltimore, MD
CENTER FOR LANGUAGE AND SPEECH PROCESSING | JOHNS HOPKINS   January 2023 - Present
- Working under the guidance of Prof. David Yarowsky to further the development of multilingual machine translation for low-resource languages in the medical field. Utilizing computational etymology and extensive language models to ensure precise translations of medical terminology.

Business Technology Analyst   Hyderabad, India
DELOITTE USI   July 2021 - July 2022
- Developed efficient SQL queries and stored procedures for tax information management
- Analyzed client data using SQL and Power BI, enhanced DML script performance by 7%, and reduced retrieval time by 20%

RESEARCH & COURSE PROJECTS

Self-Instruct for Code Editing, PyTorch   Spring 2023
- Exploring data augmentation techniques to fine-tune a language model for advanced editing tasks. Using natural language instructions, we've created a novel code-editing dataset and are currently training a language model

Unsupervised Image Classification with Vision Transformers, PyTorch   Spring 2023
- Experimented with various transformer-based encoders for visual feature extraction like DINOv2 and applied a pseudo-labeling approach for unsupervised image classification. Achieved competitive performance relative to SOTA supervised baselines

BENoAT: Better English Noisy Audio Transcriptions, PyTorch   Fall 2022
- Developed a dual-stage pipeline with a transcription model and a denoising model for processing and revamping noisy audio transcriptions, concentrating on continuous performance enhancements

ACHIEVEMENTS

- Top 1% in 10000 performers in CodeChef's Long Challenge and top 5% in 96000 participants in Google Code Jam 2020

INTERESTS

- Low-resource multilingual NLP, Machine Translation, Reasoning