KHUSHANG ZAVERI

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EDUCATION

JOHNS HOPKINS UNIVERSITY | Baltimore, MD | CGPA: 3.92/4

Master of Science in Engineering in Data Science | Expected: May 2026

Relevant courses: NLP: Self-supervised Models, Algorithms in Data Science, Machine Translation, Data Mining

MAHINDRA UNIVERSITY | Hyderabad, India | CGPA: 3.7/4

Bachelor of Technology in Computation & Mathematics | August 2020- June 2024

Relevant courses: Deep Learning, Mathematics in Machine Learning, Design & Analysis of Algorithms, Probability and Statistics

SKILLS

- Programming Languages: Python, SQL, R, C, HTML, MATLAB
- Data Handling: NumPy, Pandas, OS, Scikit-learn, SciPy, NLTK, Matplotlib, Seaborn, BeautifulSoup, Requests, ggplot2
- Model Building and Training: PyTorch, Transformers, Wandb, SageMaker, SpaCy, Flair, TensorFlow, OpenCV
- Competencies: Generative AI, Natural Language Processing, Deep Learning, Feature Engineering, Machine Learning
- Software: Git, Docker, Jira, LIWC, Apache Hadoop, Apache Hive, Apache Spark, AutoCAD, Microsoft Excel
- Certification: Machine Learning Specialization, Generative AI with Large Language Model, Deep Neural Network with PyTorch

EXPERIENCE

Graduate Research Assistant | Center for Language and Speech Processing, Johns Hopkins University | November 2024 - Present

- Researched political polarization, scraped tweet data from multiple events, reviewed literature on detecting polarized content
- Developed custom classification algorithms, fine-tuned RoBERTa for polarized content detection

Al Intern | Veltris | Hyderabad, India | January 2024 - July 2024

- Engineered Biomedical NER model, fine-tuned BERT and RoBERTa, achieved 80% accuracy, enhanced biomedical research
- Leveraged PyTorch to build CNN model from scratch to classify images into streets, forests, and mountains with 90% accuracy
- Gained expertise in Transformer Model Architecture, PEFT, RAG, Agentic AI and Deep Learning through training program

Al Intern | KPMG | Mumbai, India | June 2023 - August 2023

- Project 1: Devised application with Language Models such as Flan-T5, GEC-T5_small, Falcon-7B-Instruct
- Helped auditors get started with relevant questions, developed GEC model, increased grammatical accuracy
- Project 2: Researched and evaluated impact of BASEL IV norms on Indian banks, evaluated climate risk for flood-prone areas
- Devised safe investment solutions for Indian banks, considered climate risk and mandates to optimize strategy

Research Assistant | University of Pennsylvania | Finding Social Norms | January 2023 - January 2024

- Led creation of largest cross-cultural dataset from 5,435 movie transcripts to identify harmful social norms
- Engineered an automated Python pipeline (BeautifulSoup, Requests, OS) to extract and preprocess massive web data efficiently
- Applied advanced NLP techniques (LDA, LIWC, prompt engineering) to uncover 10,000 unique social norms

KEY PROJECTS

Medical Audio and SOAP Note Generation | OpenAl Whisper, pydub, librosa, blaze999/Medical-NER | Github.com/SOAP

Devised Whisper workflow for audio denoising, transcription; classification pipeline, fine-tuned Flan-T5 for SOAP detection

Automated Contextual News Summarization Framework | BeautifulSoup, Requests, Gradio, Transformers | Github.com/News

Automated pipeline to scrape, filter, summarize latest news on any topic, deployed model using Gradio

AgentIntellect | Python, Streamlit, Pytest | GitHub.com/AI_Agent_game

Deployed game using Streamlit, used Minimax algorithm, Utility based algorithm, Goal based algorithm to develop agents

PUBLICATION & AWARDS

- "Social Norms in Cinema: A Cross-Cultural Analysis of Shame, Pride, and Prejudice" NAACL 2025
- Published abstract of research paper at IC2S2 conference
- Received two merit scholarship for academic year 2021-2022 and 2022- 2023 for academic excellence

LEADERSHIP EXPERIENCES

- Led and hosted treks for 200+ students as Adventure Club Head of Events, Mahindra University, 2022
- Organized and coordinated events for Math Club for 1000+ students, Mahindra University, 2022
- Optimized and streamlined budget plan for AERO Club, ensured efficient resource allocation, Mahindra University, 2021