KHUSHANG ZAVERI

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EDUCATION

JOHNS HOPKINS UNIVERSITY | Baltimore, MD
Master of Science in Engineering in Data Science | Expected: May 2026
Relevant courses Research and Design in Applied Mathematics: Data Mining, Algorithms in Data Science, Machine Translation

MAHINDRA UNIVERSITY | Hyderabad, India
Bachelor of Technology in Computation & Mathematics | June 2024
Relevant courses: Deep Learning, Mathematics in Machine Learning, Design and Analysis of Algorithms, Probability and Statistics
Graduated **3rd** in class
Received **2 merit-based scholarship** for academic excellence

EXPERIENCE

Surgical tool detection in robot-assisted surgery | JHU Research and Design in Applied Mathematics | September 2024 - Present
- Develop deep learning models to enhance minimally invasive surgery techniques in laparoscopic surgery
- Detect and classify surgical tools using Faster R-CNN and Vision Transformers

AI-Intern | **Veltris** | Hyderabad, India | January 2024 - July 2024
- Engineered a Biomedical Named Entity Recognition (NER) Model by fine-tuning BERT and Roberta models, achieved 80% accuracy on biomedical databases, outperforming previous models
- Leveraged PyTorch to build CNN model from scratch to classify images into streets, forests, and mountains with 99% accuracy
- Developed Model to summarize latest news on any topic, using BeatifulSoup, Requests, OS, Transformers
- Part of training program, learned Ensembling methods, Recurrent Neural Network architectures, Natural Language Processing

Summer Intern| **KPMG** | Mumbai, India | June 2023 - August 2023
- Devised application with Language Models such as Flan-T5, GEC-T5_small, and falcon-7b-instruct to help auditors get started with relevant questions using Python, Transformers
- Researched and worked on impact of BASEL IV norms on Indian banks, evaluated climate risk aspect for flood-prone areas, and devised safe investment solutions accordingly

Research Assistant | University of Pennsylvania | Finding Social Norms | January 2023 - January 2024
- Pioneered a dataset that helped uncover over 10K harmful social norms across different cultures
- Applied libraries such as BeautifulSoup, Requests, and OS to extract vast amounts of data from various websites using Python
- Processed and cleaned corrupt data to use LDA and LIWC
- Published abstract of research paper in field of NLP at IC2S2

SKILLS

- Programming Languages: Python, SQL, R, C, MATLAB
- Technical Skills and Tools: Data Filtration (NumPy, Pandas, OS, Scikit-learn, SciPy, Datasets, LIWC, NLTK), Web Scrapping (BeautifulSoup, Requests), Model Building and Training (PyTorch, Transformer, Wandb, SageMaker, SpaCy, Flair, TensorFLow, OpenCV), and Data Visualization (Matplotlib, Seaborn)
- Competencies: Machine Learning, Generative AI, Feature Engineering, Deep Learning, Web Scrapping, Data Analysis
- Soft Skills: Communication, Leadership, Time Management, Problem Solving, Innovation

COURSES AND CERTIFICATIONS

- Deep Neural Network with PyTorch, IBM, Learning from Coursera, March 2024
- LangChain Chat with Your Data Project, DeepLearning.AI, from Coursera, Jan 2024
- Audited Generative AI with Large Language Model course offered by DeepLearning.AI and Amazon Web Service Nov 2023
- Introduction to Large Language Model - Google Cloud from Coursera, July 2023
- Machine Learning Specialization: 3 course specialization: Supervised Machine Learning, Advanced Algorithms in Machine Learning and Unsupervised Learning, offered by Stanford and DeepLearning.AI, from Coursera, August 2022

EXTRACURRICULAR ACTIVITIES

- Hosted and managed 200+ students as Adventure Club-Head of Events, Mahindra University, 2022
- Organized and hosted events for Math Club for 1000+ students, Mahindra University, 2022
- Volunteered at TATA Memorial Hospital, streamlining patient registration process to enhance patient experience, 2018
- Volunteered at Mumbai Mobile Creche, taught Mathematics to underprivileged students in an innovative way, 2018