YASH HONRAO

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EDUCATION

Texas A&M University, College Station, Texas **Expected: May 2026**
Candidate of Master of Science in Computer Science. **(GPA:4.0)**
Relevant Coursework: Software Engineering, Machine Learning, Artificial Intelligence, Natural Language Processing.
MIT World Peace University, Pune, India **May 2024**
Bachelor of Technology in Computer Science and Engineering **(GPA:3.8)**

TECHNICAL SKILLS

- Data Science, Data Analytics, Data Visualization, Machine Learning, NLP, Deep Learning, Research, Artificial Intelligence, Software Engineering, Agile, Data Structures, Problem-Solving. | Tools: Power BI, Tableau, Git/Github, Advanced MS Excel, AWS, Hadoop.
- Languages: Python, C, C++, Ruby, Java, Bash | Libraries: Tensorflow, Pytorch, SKLearn, Pandas, Matplotlib, Numpy.
- Web Technologies: ReactJS, Javascript, CSS, HTML, Bootstrap, MySQL, PHP, Flask, MongoDB, Ruby on Rails.
- Certifications: Machine Learning Specialization, Natural Language Processing with Python.

PROFESSIONAL EXPERIENCE

Data Science Intern – Finance Shared Services **July 2023 - December 2023**
Wolters Kluwer India Pvt. Ltd., Pune, India

- Solely developed the 'Analysis of Annual Recurring Revenue' by transforming client data into tangible business value for financial reporting by creating a dynamic Power BI dashboard that gave insights into the business's health, enabling data-driven decision-making for revenue enhancement by the stakeholders with an accuracy of 95%.
- Performed Exploratory Data Analysis to incorporate undiscovered insights and identified trends and ambiguities.
- Automated the process of data collection and manipulation, Attrition Report generation using Python, Pandas, and MS Excel resulting in an efficiency gain of 5 hours.

Undergraduate Researcher – School of Computer Engineering and Technology **August 2022 – November 2023**
MIT World Peace University, Pune, India

- Proposed an AI/ML-driven trucking system, optimizing routes and forecasting demand for revenue growth in logistic operations.
- Put forward a methodology to extract and classify software requirements from SRS Documents using Machine Learning and NLP with an accuracy of 78% and proposed a Deep Learning approach for Alzheimer's diagnosis with an accuracy of 95%.
- Published a patent and 4 Research papers in Hinweis and Springer Journals.

ACADEMIC PROJECTS

Meal Nutrition Analysis using Multi-modal data github **October 2024 – December 2024**

- Developed a novel multimodal deep learning approach to predict calorie intake using continuous glucose monitoring (CGM) data, demographic information, and meal images.
- Implemented a comprehensive model integrating convolutional neural networks for image processing, bidirectional LSTM networks with attention mechanisms for CGM data analysis, and fully connected networks for demographic features.
- Incorporated advanced techniques including residual connections, dropout layers, and systematic hyperparameter tuning to optimize model performance and prevent overfitting.
- Achieved a Root Mean Square Relative Error (RMSRE) of 0.35, demonstrating the effectiveness of the multimodal approach for personalized nutrition applications and contributing to advancements in dietary management and health monitoring research.

NXTFolio: A Content-Based Job-Focused Social Media Platform github website **December 2023 – February 2024**

- Served as a Scrum Master and developed a content-based job-focused social media platform using Ruby on Rails, implementing features such as user portfolios, chat functionality, and AI-powered bio generation using OpenAI API integration.
- Conducted extensive code refactoring and optimization, improving the Code Climate maintainability score from grade F to B, and increasing test coverage from 86% to 90.79% by adding over 180 new RSpec and Cucumber test cases.
- Implemented mobile-responsive UI using CSS media queries, integrated continuous integration/continuous deployment (CI/CD) pipeline with GitHub Actions, and deployed the application on Heroku with Docker containerization for consistent development and production environments. Utilized JIRA Software for efficient project management and task tracking throughout the development process, and used Git/Github for version control.

AI-based Therapeutic Image Generation using Stable Diffusion github **January 2024 – May 2024**

- Spearheaded the development of an AI-based therapeutic image generation system using Stable Diffusion, addressing the growing need for accessible mental health support. Led a team to integrate reinforcement learning, GANs, and personalized user preferences, resulting in a novel approach to anxiety management.
- Designed and implemented a mobile application with Flutter, incorporating Firebase for user authentication and data storage. Developed a sophisticated backend using Python Flask and deployed the AI model on Google Colab, reducing image generation time from 30 minutes to 1 minute through GPU optimization. Implemented a user classification system using Python and Machine Learning, achieving 93% accuracy in categorizing users into pre-defined classes based on their input data.
- Collaborated with psychology experts to align the application with therapeutic principles, conducted literature reviews, and integrated user feedback. The system demonstrated potential forprompt anxiety relief and advanced mental health interventions.

RESEARCH PAPERS

A System and Method for Enabling Smart Trucking (Indian) Patent Number: 202321064469 Link

- Collaborated with a team to develop a revenue-boosting AI/ML-based patent in the trucking industry, optimizing resource management, load planning, route optimization, and delivery time prediction with an accuracy of 85%.

Automatic Extraction of Software Requirements using Machine Learning, ICTIS (Vol 1), ISSN: 2190-3018, Sept 2023. Link
Deep Learning Approach for Early Diagnosis of Alzheimer's Disease, ICTCS (Vol 1), ISSN: 2731-0566, Dec 2023. Link
Artificial Intelligence in Trucking Business Operations – A Systematic Review, ICTCS (Vol 1), ISSN: 2731-0566, Dec 2023. Link
Smart Parking System using IoT, Hinweis, PCES, Oct 2023. Link

LEADERSHIP and EXTRA-CURRICULURS

- Member of the Aggie Data Science Club, and Aggie Coding Club and participating in various speaker events by industry professionals.
- Served as a General Secretary at the Computer Society of India MIT-WPU and organized multiple workshops, events, and webinars.